

STUDIES IN

Applied Economics

ESSAYS ON WORLD-ECONOMY IN ITS BEARINGS ON ECONOMIC INDIA
WITH STATISTICAL CONCLUSIONS AS TO THE EQUATIONS
OF COMPARATIVE INDUSTRIALISM

Vol. I

BY

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TO THE
ECONOMISTS AND ECONOMIC STATESMEN OF YOUNG BENGAL
THIS WORK IS DEDICATED

PREFACE

These studies in applied economics constitute some of my recent investigations in contemporary industry, commerce and agriculture carried on both at home and abroad,—in close contact with theorists as well as economic realities,—with a view to ascertain the proper economic policy for India. The topics have been approached from the standpoint of world-economy and international developments in economic legislation and statesmanship. The method of investigation may be seen in part in my reports published in the *Journal of the Bengal National Chamber of Commerce* (1931) under the following titles: "The Geneva Complex in World-Economy", "Contacts with Economic Italy", and "Industrial Centres and Economic Institutions in Germany".

The book is going to be published in several volumes,—each given over to diverse problems in the economics of business organization, finance and technique. The logical affiliations and chronological links between economic India and the other economic regions of the world,—which are in part aspects of the relations between what may be called the regions of the "First Industrial Revolution" and those of the "Second Industrial Revolution",—have been indicated in the form of quantitative parities or equations based on statistical coefficients (wherever international statistics can furnish fairly comparable information). Comparative industrialism or capitalism,—taking the two terms rather interchangeably in the widest sense, namely, that of "modern" economic and societal structure,—will be found thereby to be endowed with a fresh significance. The methodology and conclusions of the equations of applied economics may be seen, so far as vol. I is concerned, in the chapters on bank and railway statistics.

These equations were discussed for the first time in my *Comparative Pedagogics in relation to Public Finance and National Wealth* (134 pages, Calcutta 1929) and may be traced for their theoretical foundations to *Economic Development* (464 pages, Madras 1926) as well as to the *Futurism of Young Asia* (409 pages, Leipzig 1922). The subject has likewise been treated in somewhat definite form in my papers entitled "Indiens Entwicklung im Vergleich zu Eur-Amerika" (*Deutsche Rundschau* Berlin 1930) and "Die Entwicklung und weltwirtschaftliche Bedeutung des modernen Indien" (*Ausländische Vorträge, der Technischen Hochschule Stuttgart, Band 2, Indien*, Stuttgart 1931).

World-economy has been arresting my attention since 1918 when my study on the world's labour questions in their bearings on emigration and immigration was published as "Americanization from the viewpoint of Young Asia" in the *Journal of Race Development* (Clark University, U.S.A.). This study was followed shortly afterwards in 1919 by the publication in the *Journal of International Relations* (U.S.A.) of my investigation in foreign capital investments as underlying the economic and other concessions in China. Some of my subsequent papers on the topics of world-economy in its bearings on economic India may be listed below (without taking into consideration the chapters on commerce, economic legislation, industrialism and technical education which make up the volume entitled *Economic Development*):

1. "Die Industrialisierung Indiens" (*Verein Deutscher Ingenieure Nachrichten*, Berlin 1924).
2. "Aspetti e Problemi della moderna Economia Indiana" (*Annali di Economia*, Milan 1930).
3. "Die internationalen Handelsbeziehungen und Handelspolitik Indiens" (*Magazin der Wirtschaft*, Berlin 1931).
4. "Die weltwirtschaftliche Bedeutung der indischen Eisenbahnen im Rahmen der internationalen Eisenbahnstatistik" (*Allgemeines Statistisches Archiv*, Jena 1931).
5. "Il Movimento industriale e commerciale dell'India ed i suoi rapporti internazionali" (*Commercio*, Rome 1931).

The contents of the different chapters in vol. I as in other volumes of the present book are dated at important points so that no difficulties may arise in regard to orientations. It should be relevant to observe, besides, that this work in several volumes is ideologically associated as one complex with the two following works in Bengali, each complete in two volumes :

1. *Ekāler Dhan-daulat O Arthaśāstra* (The Wealth and Economics of Our Own Times): vol. I. The Forms of New Wealth (374 pages, 1930); vol. II. The New Foundations of Economics.
2. *Nayā Bāṅglār Goḍā-pattan* (The Foundations of a New Bengal Economic and Social): vol. I. Theoretical (530 pages, 1932), II. Practical (400 pages, 1932)

† All the three works are naturally subsequent to *Economic Development* (1926) and are indeed to be taken as in a certain sense the continuation or rather the expansion and deepening of that work along different lines, and, of course, with altogether new data.

The material for these studies in world-economy in its direct or indirect relations with economic India has arisen, as indicated at the outset, in part in the course of my recent travels and investigations in Europe from May 1929 to October 1931. My experiences during this period comprise among other things a guest-professorship at the *Technische Hochschule* (Technological University) of Munich for two semesters (1930-31) and occasional lectures at Kiel, Berlin, Innsbruck, Leipzig, Dresden, Stuttgart, and other universities in Germany as well as at the University of Geneva in Switzerland and the Universities of Milan, Padua and Rome.

To this period likewise belongs my paper entitled *I Quozienti di Natalita, di Mortalita, e di Aumento Naturale nell' India attuale nel Quadro della Demografia Comparata* presented at the International Congress on Population held at Rome in September 1931 at which I was a President of the Economic Section. The paper has been translated into English for the Eighth All-India Medical Congress held at Calcutta last March and is being published in the *Journal of the Indian Medical Association* (Calcutta).

While statistical and factual data will serve by themselves to tell their own tale in regard to the range and scope of each discussion, perhaps it should not be out of place to indicate the unifying link which connects the diverse topics with one another.

The themes are varied, so also are the regions. The object is to make a survey of the extensive field of applied economics. This survey, however, is not a purely speculative one. Its purpose is to exhibit India *vis a vis* other regions and doctor her up to the "next stage" of her economic possibilities.

References to India have indeed been sedulously eschewed from the first two papers. But they address themselves to two problems in which Indian business men and economists have of late been taking keen interest. In regard to the relations between Indian and foreign insurance companies the Indian Insurance Companies Act, 1928, hardly touches the most vital issues, and it is to those issues that attention has been called in the examination of the principles embodied in the continental legislation on the subject. The Reserve Bank of India, proposed in 1927, has not yet come into being but has been all the time in the air. It is the purpose of the second paper to attempt an analysis in as realistic a manner as possible of the fundamental considerations involved in note legislation and central banking such as stand out prominently in the experience of three pioneers in this field, namely, England, France and Germany.

The papers on Bengali bank-capitalism and Indian railways are calculated to show, in spite of progress in modern wealth, the essentially primitive condition of the industrialization such as has been achieved up till now. The fallacy of all those economists, sociologists and political philosophers,—Indian or foreign,—who are tempted to cite and emulate the contemporary developments of the *great powers of to-day*, especially of America, England, France and Germany, while formulating schemes of economic or societal reconstruction for *India with reference to the near future*, is thus automatically exposed. Attention is, on the contrary, diverted either to the present-day conditions of the "Balkan complex", Eastern Europe and Russia, or to the old conditions of the industrial pioneers and adults such as obtained, say, some two generations ago,—in order that the proper doctoring might be attempted. These two chapters exhibit India more or less in the conditions of what may be described as the First Industrial Revolution, which for England is to be placed between 1785 and 1848 and for France and Germany between 1830 and 1870. And so it happens that rationalization, which is the most signal feature of the Second Industrial Revolution, is to be found only in traces, in its rudimentary conditions, in India. The fifth chapter leaves no doubt on this point.

In the last chapter the almost inevitable economic and financial relations obtaining to-day between the regions of the First Industrial Revolution and those of the Second Industrial Revolution are analyzed on the peg of the world crisis of 1929-32. Indian economic statesmen as well as experts of other countries are furnished with view-points such as may help them to visualize in a concrete manner the basic foundation of genuine world-economy, namely, the export of capital and "instruments of production" (*Produktionsmittel*) from the regions of the Second Industrial Revolution to those of the First in order that the purchasing power of the men and women of the latter might rise helping thereby to heighten the standard of living of the former.

The chapters that are going to be published in the subsequent volumes will likewise serve to focus attention, from the angles of co-operative credit, labour force, occupational structure, unemployment insurance etc., on the same complex of relations between the industrial adults and industrial youngsters with special reference to India. The equations of comparative industrialism are, then, likely to remain no mere mathematical curios but bid fair to be appraised as perhaps quite helpful tools in the task of world-reconstruction at the hands of experts in applied economics, both Indian and foreign. World-economy is thus being brought down from the heights

of economic theory and history to the offices and godowns of actual export-import, factory equipment, agricultural transformation, rural uplift and municipal progress on an international scale.

My sincere thanks are due to the Calcutta University for the material facilities generously accorded to me on my first return to Calcutta towards the end of 1925 after an absence of nearly twelve years spent in foreign countries. I am deeply indebted likewise to the friends who have been liberally cooperating with me in my scientific work since then, especially in connection with the monthly review, *Ārthik Unnati* (Economic Progress), and the *Barigiya Dhana-Vijñān Pariṣat* (Bengali Institute of Economics). To the Bengal National Chamber of Commerce whose decision in 1926 to publish an economic and statistical quarterly in English has enabled me as the editor to serve the Bengali commercial intelligence in a systematic manner with the objective facts and ideas of world-economy as well as with suggestions regarding the methods of advancing the economic welfare of the Bengali people I have equal reasons for expressing my profound gratefulness.

It remains to refer with pleasure to the scientific discussions on developments in business organization, technical progress, and economic policies with Senator Raphael-Georges Levy, banker and currency expert, as well as M. Emmanuel Vidal of the *Societe d'Economie Politique de Paris* (of which I have been a member since 1920),—Directors March of the *Statistique Generale de la France* and Pinot of *Le Comite des Forges de France*, Professors Truchy, Hauser, Gide, Bougle, Berr, Colson and Oualid (Paris), Mr. Pethick Lawrence, M.P., Professors Wallas, Tawney, Rowe, Schwartz and Laski of the London School of Economics, Director A. J. Toynbee of the Institute of International Relations (London), Professors Arthur Newton and Delisle Burns of London, Prof. Zimmern of Oxford (and Geneva), M. Comert, Mr. Cummings and their colleagues at the Information Section of the League of Nations, Prof. Milhaud of the International Labour Office, Professors Hersch and Rappard of Geneva, President Zahn of the Bavarian Bureau of Statistics, Exc. Dr. Oskar von Miller of the *Deutsches Museum* (Munich), the *Deutsche Akademie*, the *Technische Hochschule* and Professors Haushofer, Dorn, Adolf Weber, Lotz and von Zwiedineck of Munich, Dr. Goldenberger, the Bavarian minister of education, Dr. Carl Duisberg of *I. G. Farbenindustrie*, Prof. Matschoos of the *Verein Deutscher Ingenieure*, Directors Karl Lange of the *Verein Deutscher Maschinenbauanstalten*, Dr. Negbauer of the *Verein Deutscher Werkzeugmaschinenfabriken*, Dr. Hornig of the *Allianz und Stuttgarter Versicherungsgesellschaft*, Demuth of the *Industrie and*

Handelskammer (Berlin), Guttman of the *Dresdner Bank*, Voss of the *Leipziger Messamt*, and Furtwängler of the *Allgemeiner Deutscher Gewerkschaftsbund*. President Wagemann of the *Statistisches Reichsamt* and *Institut für Konjunkturforschung*. Professors Tönnies (Kiel), Schumacher, Prion and Aereboe of Berlin, Spann (Vienna), Günther (Innsbruck), Muesmann (Dresden), Wunderlich (Stuttgart), Wehrle (Karlsruhe), Helander (Nürnberg) and von Wiese (Cologne,⁴) the statistician Dr. Woytinsky (Berlin), Professors Graziani and Musco of Naples, Mortara (Milan), Pietra (Padua), Benini, DelVecchio, Carli and Niceforo of Rome, Director Dr. Tagliacarne of the *Consiglio Provinciale dell'Economia* (Milan), as well as Prof. Corrado Gini, President of the *Istituto Centrale di Statistica* in the Kingdom of Italy.

Finally, I avail myself of this opportunity to gratefully record the cooperation in scientific and social work constantly extended to me by Dr. Narendra Nath Law, my friend and colleague of over two decades.

Calcutta,
April 14, 1932 .

Benoy Kumar Sarkar

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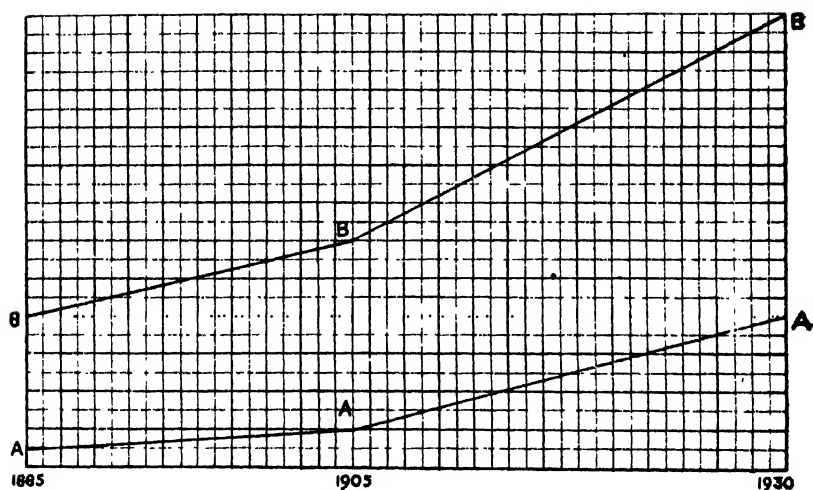
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CHART I
The Three Equations of Comparative Industrialism



The Formule of the Equations between two regions A and B :

- I. $B (1930) = xA (1930)$
- II. $A (1930) = yA (1905)$
 $B (1930) = zB (1905)$
- III. $A (1930) = B (1885)$

(See pp. 208-209)

Principles of Control over Foreign Insurance Companies

(as embodied in the Economic Legislation of the Continent)

1. Germany

There are twelve foreign countries carrying on insurance business in Germany. In 1930 the number of foreign insurance companies of all sorts was 97¹ distributed according to nationality as follows :

1. Great Britain 38	7. Sweden 4
2. Switzerland 18	8. Danzig 4
3. Austria 8	9. Italy 2
4. Denmark 8	10. Jugoslavia 1
5. Holland 7	11. Czechoslovakia 1
6. United States 5	12. Hungary 1

This is a small number when one considers that the total number of insurance companies operating in Germany is near about 1500. As is naturally to be expected, the indigenous companies are preponderant in the German insurance world.

¹ *Neumanns Jahrbuch der Privatversicherung im Deutschen Reich* 1931 (Berlin 1931), pp. 641-698; Iranyi: *Die in Deutschland arbeitenden ausländischen Versicherungsgesellschaften in Jahre 1929* (Vienna 1930).

According to the objects of insurance the indigenous and foreign companies of Germany may be exhibited in the following table (May 1929):²

Objects	Indigenous	Foreign	Total
1. Life and Sickness	655	20	675
2. Accident	22	7	29
3. Hail and Cattle	500	1	501
4. Fire	106	43	149
5. Diverse	100	2	102
	<hr/> 1383	<hr/> 73	<hr/> 1456

Re-insurance companies have been excluded from the above list. In a total of 1456 offices transacting business in May 1929 in the fields of life, accident, hail, cattle, fire, etc., the foreign element was represented by 73 only.

The Home Insurance Company of New York is an old institution established as it was in 1853. It is quite substantial too, being operated as it is at a capital of 24,000,000 dollars. The company has been doing business in Germany since 1923 and its activities cover transport, fire, and losses from storm. Its German office is located at Hamburg, and its business manager legally responsible for all transactions carried on in Germany is not an American, but a German.

The chief responsible officer of the German branch of another big American house, the Great American Insurance Company of New York (capital 15,000,000 dollars, established 1872), is likewise not an American

2 *Statistisches Jahrbuch für das Deutsche Reich* 1930 (Berlin), p. 518.

but a German. In Germany the company has license to transact only transportation insurance.

The Assicurazioni Generali of Trieste is an old and strong company (est. 1831, cap. 60,000,000 liras.). It is since 1845, i.e. long before Trieste became Italian as a result of the war of 1914-18, that the Company has been carrying on business in Germany. It is an all-round house, but in Germany its activities are legally restricted to life, fire, burglary, glass, and transport. Its German offices are located at Hamburg, Leipzig, Bremen, Frankfurt on the Main, Hannover, Luebeck and Mannheim; and at each office the responsible head is not an Italian but a person of German nationality.

A British office, the Eagle, Star and British Dominions Insurance Company of London was established in 1807 and is at present run with a capital of £3,000,000 sterling (paid-up £1,092, 898). At home it does business in life, fire, accident, burglary, transport, glass etc. But in Germany its sphere is limited to transport, fire and burglary insurance. The company entered the German market in 1925. In all its German offices the responsible chief officer is not a Briton, but a German individual or company, for instance, Firma Maud, Fester und Ahrendt (Hamburg), Firma Buse und Schwartz (Bremen), and so on.

The North British and Mercantile Insurance Company of London and Edinburgh is likewise an old house (est. 1809) and commands capital to the tune of £6,000,000 (paid up £2,437,500). In Germany it has been functioning since 1863, and although its home and other foreign transactions cover a wide field from life to marine, in the German area it has license only for fire. The responsible

officer of this company, again, is not a Briton but a German.

As has been incidentally noted, these five offices³ are of considerable financial importance in the business world. All of them, besides, are concerns possessing the nationality of political "Great Powers." But while running branches in Germany, no matter for what line of insurance, none of them happen to be represented at the highest responsible position by their own nationals. The general managers or directors are invariably Germans, i.e. persons possessing the nationality of the country in which the branches are located. This, however, is not an accidental phenomenon with these five houses. All the foreign offices functioning in Germany find themselves in the same condition. For their business in Germany they have German directors.

The German law of insurance says simply that *der Hauptbevollmaechtigte*, i.e. the principal person with the "power of attorney", the chief responsible official, is to be a person *der innerhalb des Reichsgebiets seinen Wohnsitz hat* (Act of 1901), *der im Reiche wohnt* (Act of 1931), i.e. who has domicile in the German Empire. The nationality of the person has not been definitely stated in the Act of 1901 or of 1913 (section 106). But on enquiry at the *Aufsichtsamt* (Government office of control for insurance business) as well as at certain business houses one finds that the *Verwaltungspraxis* or administrative practice takes it for granted that no foreigner would be authorized with the power of attorney to carry on insurance business of any kind within the

boundaries of Germany. *Der Hauptbevollmächtigte* is personally responsible to the *Aufsichtsamt* for everything connected with the contracts, investments, hypothecs, reserves, agents, officials, etc. in exactly the same manner as the directors or representatives of indigenous companies (sec. 107, '108).¹ It is to be observed that the power of attorney may be conferred on an individual as well as on a company. The different foreign houses have established different traditions in this regard, and the provisions of the *Aufsichtsamt* are quite elastic.

Another feature in the business organization of foreign companies transacting insurance operations in Germany deserves notice. In Iranyi's annual reports on insurance business in Germany we find that the Home Insurance Company of New York publishes two balance sheets every year. One gives the figures in dollars about the total business of the company, while the business done in Germany is shown separately in Reichsmarks. Two statements are likewise published by Danish companies, one for the entire business, in Danish crowns, and the other in Reichsmarks for the German business. The British, Italian and other foreign houses similarly publish two statements, one for the total business in the national currencies and the other for the German business in German money. This universal practice of the foreign companies of issuing two statements, especially the statement on the German business in German currency, is not a voluntary concern of the companies themselves. They are compelled to do so by the *Reichsaufsichtsamt fuer*

4 Könige-Petersen: *Privatversicherungsgesetz* (Berlin, 1927),
Kommentar, pp. 751-753, 755.

Privatversicherung" (Imperial Office of Control for private insurance) which makes such special statements on the German business a pre-condition for the *Erlaubnis*, permission or license, to open a branch in Germany. Incidentally be it observed that the statements on German business have to be prepared in accordance with the requirements of German commercial law and that the language to be used is German. So far as the total business is concerned, the foreign companies are required to submit to the *Aufsichtsamt* a literal German translation without modification of the original reports and accounts placed by them with their own Government offices of control according to the laws of their countries.

The legislation on private insurance in Germany is based on the Act (*Gesetz ueber die privaten Versicherungsunternehmungen*) of May 1901. The Act was modified and expanded several times and has taken final shape in the *Gesetz ueber die Beaufsichtigung der privaten Versicherungsunternehmungen und Bausparkassen* (Act for the control of private insurance enterprise and building savings banks) of June 1931. Every legal condition to which the indigenous houses are subject is binding on the foreign houses as well. In Chapter VI sec. 105-III of the Act of 1931 are detailed separately the conditions under which the foreign companies are authorized to carry on business. On enquiry at some of the business offices it has been ascertained that a thorough-going uniformity does not obtain in regard to the relations of the foreign houses with

the *Aufsichtsamt*. A great diversity of practice has grown up in connection with their meeting the requirements of the Act. In every instance the *Aufsichtsamt* has the right to exercise discretion on the question of the conditions to be made binding on the companies (sec. 110).

The *Erlaubnis*, permission or license, may be refused (sec. 106) to a foreign as much as to a home company under the following circumstances (sec. 8):

1. When the "business plan" in any way comes into conflict with the general legal requirements;

2. (i) When the interests of the assured are not adequately protected or (ii) when the obligations arising out of the assurance are not capable of being properly fulfilled in a constant manner. The legal as well as economic protection of the insured is implied.^a The two items of the section, bearing as they do on the financial stability and security of the companies, enable the *Aufsichtsamt* to examine and control even the smallest details in the business management of the foreign as much as of the home companies without distinction.

3. When certain facts justify the suspicion that the business administration does not conform to the laws and good morals of the land.

In any case, an appropriate *Sicherheit* or security can be demanded of every company, both indigenous and foreign, before the license is granted (sec. 8). In regard to *Sachen* (property) or *Schaden* (losses) *Versicherung* i.e. industrial or commercial insurance, the security in general

consists of two parts :⁷ (i) *Grundkaution*, basic caution or fixed deposit, of the minimum value of 500,000 Rm. ; (ii) *Bewegliche Kaution*, elastic or mobile deposit, which is 50 per cent of the gross premium income of the company derived from its direct business in Germany. The two caution moneys together constitute the total security. For life insurance the security is a fixed deposit consisting in 10 per cent of the premium reserve. On the question of these deposits, again, there is hardly any uniformity. Each company is treated by the *Amt* on its own merits, and no company is bound by law to announce publicly the exact amount of deposits demanded by the *Amt*.

The *Amt* has the right to nominate the auditor who is to examine the book-keeping, accounts, balances, etc., (sec. 58). This right can be exercised in regard to the foreign companies also, should the *Amt* so desire (sec. 110).

The "premium reserve fund", the most important among the several funds of the life offices from the standpoint of the insured, is to be collected and booked by all companies, home and foreign, according to the officially standardized system (sec. 110, 65, 11). It has to be administered separately from all other funds and must be conserved at the domicile itself, *i.e.* within the boundaries of Germany. The *Amt* must be informed as to how this fund is being preserved and administered and if necessary may permit other and more appropriate methods (sec. 110, 66). The different items of the premium reserve are to be shown in a special register individually in details.

The conservation of the fund or of a part of it in foreign countries may be allowed temporarily under exceptional circumstances.⁸

Should certain items happen to be deposited with a bank, the company must forward to the *Amt* a certificate from the bank to the effect that the entire deposit is beyond the legal, contractual or mortgage jurisdiction of the bank. The *Amt* has to be satisfied that whatever may happen to the company or to the bank the money placed there will remain untouched except only for the purposes of the premium reserve, i.e. in the interests of the insured. The Government control over the premium reserve register is minute and strict. There are definite rules as to when and how red ink is to be used. It is even prescribed that the envelopes covering the bonds and securities are to be preserved.⁹

Another important feature of the premium reserve lies in the fact that the principle of "*kongruente Deckung*" (corresponding cover) has to be followed by every company. The fund may be divided into separate sections (sec. 110, 66, 68, vii) according to the different currencies in which the premium flows into the hands of the company. The principle has been established that the investments of the premium reserve are to be made in the currency in which the premium is paid in.¹⁰ The separateness and independence of the sections from one another should imply that the claims of the insured are to be met independently of one another according to the currency or nationality. The company is not permitted

8 Könige-Petersen, 528.

9 *Ibid.*, 583, 584.

10 *Ibid.*, 586, 593, 601, 602.

to meet the claims of the insured of any one section from the liquid assets of some other section.

All these regulations have reference to the premium reserve fund only and they are considered by the German Government to be sufficient to protect the interests of the citizens who insure with foreign companies (sec. 110, 56-64, 65-69). Indeed, foreign companies are on exactly the same footing as the indigenous. It is interesting to observe that in German law, contrary to the laws in certain other countries, there is no regulation to the effect that the premium reserve fund or any part of it must be invested in home Government securities.

The crucial consideration in the eye of German insurance legislation is embodied in the item that "*der Deckungsstock fuer diese Versicherungen ist nach naeherer Bestimmung des Reichsaufsichtsamts so sicherzustellen dass nur mit seiner Genehmigung darueber verfuegt werden kann*" (sec. 110). This is the most fundamental law in regard not only to the investments of the premium reserve but in regard to all other investments as well. The reserves for all risks in connection with life as well as accident and liability insurance are to be secured in such a manner that they cannot be disposed of by the companies themselves without the previous sanction of the *Amt* (sec. 110).¹¹ No matter in what manner or what country the investments are made, foreign companies doing business in Germany are thereby constantly under the control of the German Government. The *Amt* is systematically to be consulted by the companies, home and foreign, in

¹¹ Könige-Petersen, 578, 761.

regard to all details concerning the mode of investment. The *Amt* has the right to suggest certain and forbid others according to its findings. And finally, when the investments have been once made they lie under the perpetual guardianship of the *Amt*. The company cannot make any use of them unless the *Amt* has been informed about the purpose for which the investments are to be touched and unless of course it considers the use of the investments by the company to be legitimate and in the interest of the insured.¹² It has to be remembered that the other factor which serves in German law to protect the interest of the insured is to be found in the security or deposit as a compulsory feature of all companies. The deposit has by regulations to be placed with the Reichsbank by the *Amt* in the name of the company.

Although German law does not compel foreign companies to invest the premium income or reserve accruing from their German business exclusively in German values it is none the less explicit and quite thorough in the list of values in which alone the investments of the premium reserve fund are permissible. The list includes the following (sec. 68):

1. (a) All those values in which according to the *Buergerliches Gesetzbuch* (civil law of Germany), sec. 1807, 1, i-ii, a guardian is permitted to invest the money of his ward; (b) all those bonds in which such money may be invested, (c) such mortgage deeds of German hypothec banks as are placed in Class I by the Reichsbank.

2. All those claims which are secured by hypothec

and bonds of the above description as well as satisfy the conditions of the Reichsbank.

3. All those values from which it is possible to obtain advances or loans on the strength of the policies as issued by the company.

4. Such claims as are to be met by "inland" communal corporations, school and church communities, provided they can be withdrawn by the creditor or satisfied in regular instalments.

5. Real estate or landed property within the country. Not more than 25 per cent of the premium reserve fund may be invested in lands. The limit may however be exceeded with the sanction of the *Amt*. These lands must not be such as are already burdened with hypothecs or other claims. In any case in order to have recourse to real estate for the purpose of investment a special permission is required. As a rule the *Amt* is cautious in regard to this item lest a heavy investment in lands should render the funds illiquid.¹³

6. Such values (inland and foreign) as are based on gold,—for the purpose of covering insurance made in gold currency. This section has had a special reference to the inflation-period transactions, when, in addition to the paper currency the Government was introducing certain currencies on the gold basis as a transitory measure.

7. Such values as run in foreign currencies,—for the purpose of covering insurance made in those currencies.¹⁴ The loans of foreign governments, government-guaran-

13 Könige-Petersen, 599 601

14 *Ibid.*, 602.

teed foreign loans, policy-loans and other foreign securities can be made use of, subject as usual to the scrutiny of the *Amt*. Foreign money may also be used for the purpose of investment but not exceeding 50 per cent of the premium reserve.

It is interesting to note that the law of 1923 permitted investment in shares of indigenous commercial, industrial or agricultural undertakings to the extent of 25 per cent of the premium reserve fund.¹⁵ But this permission has been withdrawn in the Act of 1931.

As has been observed several times, the *Amt* can exercise discretion in regard to the terms to be imposed on the companies. On the question of investments, as on other items, no two foreign companies may therefore happen to be actually alike so far as their relations with the *Amt* are concerned. And of course those details are guarded as trade secrets.

2. France

The number of foreign insurance companies functioning in France is 465. As in Germany so in France also they are required to nominate a person resident in the country as their special agent and official representative. This person is not necessarily a French citizen. A survey of the office-bearers of the foreign companies indicates, however, that most of them are represented by Frenchmen, but that it is possible to single out a few foreigners too. In Germany, on the other hand, the representatives of the foreign houses are invariably Germans, although the law is not definite on the point.

15 Könige-Petersen, 589, 599, 600.

The French law, unlike the German, is not particular about the deposits or securities. Foreign companies are not required to make any deposits unless the home countries compel the French companies to do so.

Particular classes of business are subject to special Government supervision and control, for instance, life, endowment, savings and workmen's compensation. This supervision is applied as much to the foreign as to the indigenous companies. The regulations are, however, so strict that very few foreign houses go in for these kinds of business. Thus, most of the 465 companies noted above do business other than the four items mentioned here.

The companies, indigenous as well as foreign, must possess a share capital of 1,000,000 francs (Re. 1 = 9 fr. approximately), of which only 25 per cent need be paid up. There is no legal restriction to the carrying on of any kind of business on the strength of this capital. But a permission or license is required in each instance a new business is embarked upon. Besides, deposits may be demanded for certain kinds. A legal reserve is to be constructed with 20 per cent of the net profits until the reserve reaches 20 per cent of the issued share-capital.

Foreign companies are required to submit a special balance sheet for their French business. The supervising and controlling authority in this regard as in others is the *ministere du travail* (ministry of labour). It is interesting to observe, however, that in the *Assekuranz-Jahrbuch* (Band 50.) M. Daniel of Paris is in a position to report the foreign life offices with figures about premium reserve etc. but fails to do so in regard to the foreign fire offices.

We are told that these latter are not compelled to submit accounts regarding their French business.

In so far as the payment of taxes, duties, stamp fees, registration fees etc. is concerned, foreign companies are required to name a French bank with a minimum share capital of 20,000,000 francs. This bank is to be responsible to the ministry of finance for the payment by the companies.

Funds including paid-up capital are to be invested in prescribed securities. Certain securities are earmarked in which at least three-fourths of the funds are to be invested. The remaining one-fourth is to be treated as working capital and may be invested by the companies freely but always with the sanction of the general annual meeting of the shareholders.

In the accounts the premium reserve and the loss reserve are to be indicated clearly. Not less than 33 per cent of the year's net premium income is to be treated as premium reserve. The securities in which these reserves are deposited must be detailed in the annual report and their valuation definitely explained.

The law of 1922 is in the main binding on insurance business.

3. *Italy*

In Italy there are 57 foreign companies doing insurance business by the side of 109 indigenous institutions. These represent France, Germany, Great Britain, Austria, Switzerland, Argentina, Brazil, Bulgaria, and the U.S.A. The most in evidence is France with 26 offices followed by Great Britain with 9 and Switzerland with 8. The home as well as the foreign companies

are governed by the laws and decrees of 1921, 1922, 1923 and 1925. The authority of control for all offices is vested in the *ministero per l'economia nazionale*.

In order to carry on insurance business, whether (i) for life or (ii) for property i.e. industry and commerce or (iii) for reinsurance, every company has to obtain a license from the ministry of national economy. The general agent for all foreign companies in Italy must be an Italian citizen. While applying for permission the companies must produce certificates testifying to the Italian nationality of the chief responsible officer. On this point the Italian law is more explicit than the German and the French and necessarily more strict. A concession tax has to be paid by all companies, home and foreign.

For life insurance an initial deposit of 2,000,000 liras (Re. 1 = 7 liras approximately) has to be made. The payment must be made in cash or state bonds. Only the *Cassa dei depositi e prestiti* (Bank for deposits and loans) or an *istituto di emissione* (industrial bank) is authorized to receive this deposit. In the case of property insurance the initial deposit is 200,000 liras if only one line is transacted. But if more than one class of industrial and commercial insurance be attempted the initial deposit is to be 500,000 liras.

Regarding other deposits the regulations are precise too. Life offices must invest the mathematical reserve in (1) Italian state bonds, (2) non-mortgaged properties, (3) other approved securities, or (4) cash deposits. Only the *Cassa depositi* or a *cassa di risparmio* (savings bank) has the authority to accept these investments. Not more than 5 per cent of the mathematical reserve need however be invested in this manner. While determining this 5 per

cent one has to consider the gross amounts of the reserve. Deductions may be allowed only for reinsurance with the *Istituto Nazionale delle Assicurazioni* or with the *Unione Italiana di Riassicurazioni*. The insured are specially protected by the regulation that separate accounts are to be kept for the mathematical reserve and that this is not to be touched except in the interests of the policy-holders. This reserve has to be readjusted every year one month after the approval of the balance sheet. 1,500,000 liras out of the initial deposit of 2,000,000 liras may be used as the mathematical reserve.

In addition to the initial deposit the offices for property insurance must make fresh deposits every year according to the value of business. The total deposit must at the end of the year make up 35 per cent of the gross premiums derived from Italian business. The percentage may however be reduced (i) to 15 per cent for short period insurances, e.g. for marine insurance on a single voyage for hull or goods or for general insurance (excluding hail and cattle) such as does not run for more than six months, (ii) to 20 per cent for hail and cattle, and (iii) to 25 per cent of the premiums of the mutual hull associations under certain circumstances.

4. Switzerland

Thirtyfour foreign companies transact insurance business in Switzerland, of which 16 are French, 8 British, 8 German and 2 Italian.¹⁶ The legislation is embodied in the Act of 1885 relating to the control of private insurance companies, the Act of 1919 relating to the

16 *Asssekuranz-Jahrbuch*, 50. Band, pp. 511-513.

cautionary deposits of insurance companies, the regulation of August 1921 which is supplementary to the two previous Acts, and the Act of 1930 relating to the security of claims. This last Act however has reference exclusively to the indigenous life offices.¹⁷

The controlling authority is the *Bundesrat* (Federal Council). For the business in Switzerland foreign companies have to appoint a chief official with the power of attorney, and this official must be a Swiss citizen and must live in Switzerland (Act 1921, art. 15). The law, like that in Italy and unlike that in Germany, leaves no doubt on the nationality of the *Generalbevollmächtigter*.

A caution has to be paid by all insurance companies, home and foreign. The only exception is represented by those carrying on reinsurance.

The initial caution to be deposited by foreign companies is as follows (Act 1921, art. 3):¹⁸

(1) life	200,000 francs
	(Re. 1 = 1.9 fr. approximately).
(2) accident and liability	600,000 fr.
(3) fire	100,000 fr.
(4) transport	50,000 fr.
(5) diverse, for each class	20,000 fr.

The payment is to be made exclusively in Swiss values.

In addition to this first caution the foreign companies are required to make deposits every year. These deposits vary according to the class of business (Act 1921, art 2):¹⁹

17 *Die privaten Versicherungsunternehmen in der Schweiz im Jahre 1929* (Bern 1931), pp. 118 119.

18 *Ibid.*, p. 117.

19 *Ibid.*, p. 117.

1. For life insurance they must pay the entire *Deckungskapital* (covering capital), the "mathematical reserve," of the business done in Switzerland, plus a reasonable supplementary amount to be determined by the *Versicherungsamt* (Government Insurance Office).

2. For accident and liability insurance they must pay at least 50 per cent of the premiums collected in Switzerland during the previous year. In the case of long period insurances and some other items the entire mathematical reserve of the Swiss business is demanded by the *Bundesrat*.

3. For transport insurance they must pay at least 25 per cent of the premiums collected in Switzerland. In the Act of 1919 there was no regulation relating to transport.

4. For all other insurances the rate is at least 50 per cent.

These regulations about *Kautionszoll* (cautionary deposit) apply to the home offices also (Act 1921, art. 6). They possess, however, the option of paying a fixed amount for each class of insurance.

In regard to payments, foreign securities may be used by all companies, indigenecus and foreign. But the amount of foreign values must not exceed 25 per cent (Act 1921, art 7). This limit may be exceeded under exceptional circumstances as a temporary measure. But in these circumstances the company must use all the available values in Swiss currency for the payment of the caution.

Whatever be the securities offered by the companies the values of each are to be determined by the *Versicherungamt* (1921, arts 9, 10). The deposits are to be placed

with the *Schweizerische Nationalbank* (central bank, note-bank). These cannot be exchanged or recovered without the permission of the *Amt* (1921, art 12).

5. Portugal

The law of 1929 compels foreign companies to publish two statements, one on the total business and the other on the business done in Portugal. Both the statements are to be published in the Portuguese language.

Cautionary deposits are demanded of all companies, home and foreign, at the following rates ; for life, 500,000 escudos ; for workmen's compensation 300,000 escudos ; for other classes 250,000 escudos (1 esc. = Rs. 3).

In addition to this guarantee deposit foreign companies are required to hold a specified reserve :

1. In the case of life and workmen's compensation this is to amount to the exact mathematical reserve.

2. In regard to fire, accident and other business extending over one year the reserve is to be $33\frac{1}{3}$ per cent of the net annual premium income.

3. In regard to marine and other short term business the reserve is specified to be 10 per cent of the premium income.

6. Poland

In Poland, as in Italy and Switzerland, the law demands that the chief official of foreign insurance companies transacting business in the country is to be a Polish citizen. He is bound to carry on the office work in Polish language. The appointment of this official is as elsewhere subject to the control of the highest authority in regard to insurance matters, and that is the ministry of finance.

A cautionary deposit of not less than 2,000,000 zloties is demanded of all foreign companies. Additional deposits for life business amount to 1,000,000 zloties, for fire 1,000,000 zloties, for hail 500,000 zloties, for transport 500,000 zloties, and 250,000 zloties for all other classes of insurance (Re. 1 = 3 zloties approximately).

The assets in which the deposit and other funds are placed are to be entered upon a special register. As in Germany, in Poland also no foreign company is permitted to exchange these assets without the approval of the controlling authority. These assets are legally beyond the jurisdiction of any claims whatsoever against the company. They cannot be touched except in the interest of the insured and may be used only on the liquidation of the company's office in Poland. This provision applies as much to the indigenous as to the foreign companies and is identical with the fundamental feature in German legislation. In Poland also as in Germany the law recognizes the principle of "corresponding covers" in regard to investments.

There are only 7 foreign companies in Poland: 2 Austrian, 2 German, 2 Italian and 1 British.

7. *Bulgaria*

According to the Act of 1926 foreign companies have to invest in Bulgaria at least 1,000,000 lewas of their working capital, if they transact one class of insurance business. But should they transact more than one class they have to invest at least 2,000,000 lewas (Re. 1 = 50 lewas approximately).

Preliminary deposits by way of guarantee are demanded of all companies, indigenous and foreign, at the rate

of 1,300,000 lewas for each kind of business. These deposits are to be placed with the *Banque Centrale Co-operative Bulgare*.

Investments within the boundaries of the country are demanded of all companies, home and foreign, in the following manner : (1) for 'life, the entire mathematical reserve, (2) for accident, likewise, the entire mathematical reserve, (3) for fire, 40 per cent. of the annual premium income, (4) for marine and other business, 25 per cent of the premium.

8. Rumania

In Rumania foreign companies have to deposit with the *Caisse des depots et consignations* or with the *Banque Nationale de Roumanie* a caution amounting to 4,000,000 leis for each of the following classes of insurance : (1) life, (2) accident, (3) fire, (4) hail, (5) transport. (Re. 1 = 60 leis). This preliminary deposit may be made in (1) cash, (2) bonds guaranteed by the state or (3) mortgage loans on Rumanian house property.

In addition to this cautionay deposit every foreign company must invest in Rumania at least the following amounts :

1. For life business : the entire mathematical reserve including the reserve on the reinsurers' share of the business.

• 2. For other business : the technical reserve, which however must not be less than (1) 40 per cent of the premium collected in fire, marine etc., and (2) 25 per cent of the premium collected in inland transport insurance.

These provisions apply equally to the indigenous companies.

The latest law is embodied in the Act of 1930.

9. *Latvia*

Foreign insurance companies are not permitted to transact business in Latvia. This is the order in Council of 1921.

10. *Lithuania*

In Lithuania the foreign companies are not permitted in their advertisements to allude to the capital or other property held abroad.

The premium reserve of the Lithuanian business and the required deposits are to be held in Lithuanian banks authorized by the ministry of finance. Without the sanction of the controlling authority these sums cannot be touched by the companies.

The chief official of the foreign offices is to be a Lithuanian citizen residing permanently in Lithuania.

The law is that of 1923.²⁰

20 The material for France, Italy, Portugal, Poland as well as the Balkan and the Baltic states is derived from *International Insurance Intelligence* 1930-31 (London). For statistics see *Assekuranz-Jahrbuch* (Vienna).

The Re-making of the Reichsbank and the Banque de France

(A study in Note-Legislation in the perspective of the Bank of England)*

Note-Banking

It is perhaps since the establishment of the "federal reserve system" in the United States (1913) that the term "reserve bank" has become somewhat popular in economic thinking and business parlance. "Central banking," as a more or less universal expression, is a more recent category, having risen into limelight as an item in the ideology of post-war economics. Centralization, or unification of reserves and control of credit, belong to the same complex of present-day theory and practice as the control of fluctuations and crisis, stabilization, etc. The term "state bank" is very often loosely employed to indicate institutions such as it has been the recent vogue to describe as reserve or central.

But it is interesting to observe that none of the older banks of this type, especially of England (1694), France (1800), Germany (1875), Japan (1882) and Italy (1893) are named "reserve", "central" or "state". They are simply named after the countries to which they belong.

* The American federal reserve system forms the subject-matter of a special chapter. (See *infra*).

To what extent each of them is or is not a "state" institution is indeed a matter for discussion involving as it would do an analysis of the charters. And as to whether they have in the past served or are at the present moment serving as reserve centres of the respective nations, the answer would depend on an historical and statistical examination of the operations of each in the money market. But in regard to one point there is no doubt. It is that these institutions are by origin as well as by functions essentially commercial banks. And as commercial credit institutions also they deal to a considerable extent or rather specialize in note-making and note-circulation. Paper currency and issue of notes constitute the characteristic field of their operations.

It is the custom, therefore, to describe these institutions as *banche di emissione* (bank of emission) in Italy, as *banques de circulation* (circulating banks) in France, and as *Notenbanken* (note-banks) in Germany. The corresponding term in English should be, as is well known, "banks of issue" or "issue-banks."

Functionally speaking, each of these has of course a twofold character. In the first place, it is a commercial bank with loan and deposit operations. In the second place, it has the privilege, exclusive or otherwise, of issuing and circulating paper money. This two-fold character is perhaps most precisely objectified in the Bank Charter Act of 1844 which formally led to the compulsory bifurcation of the Bank of England into two distinct departments: (1) banking and (2) issue.

It is the purpose of the present paper not to ignore or overlook the central, reserve and state or quasi-state aspects of these credit-institutions but to visualize them

functioning, first and foremost, in their distinctive feature, namely, in their ordinary banking operations, as commercial banks. Like industrial, agricultural or other banking, note-banking also has its own risks and methods of avoiding or controlling those risks. The new Reichsbank (1924) and the new Banque de France (1928) are being placed in the perspective of the Bank of England and some light is being thrown on the problems, first, of note-banking, and, secondly, of commercial banking *vs.* note-banking, such as these issue-banks have to solve.

Five Note-Banks in Germany

In 1851 there were 10 Note-Banks in Germany. Their number rose to 30 in 1860 and 33 in 1875. In Prussia alone there were 8 Note-Banks excluding the Bank of Prussia, a state-institution.¹

The law of January 30, 1875 was enacted to introduce uniformity in banking practice and management. But monetary unity of the Empire was also one of the chief aims of this legislation.

By the law of 1875 all the 33 banks were authorized to issue notes. But the total amount was not to exceed 385 millions of Marks. The Reichsbank was one of these 33 institutions, and was privileged to circulate 250 million Marks. But it was also decreed that should any of these banks cease to exist or decide to renounce the privileges of note-issue, the Reichsbank would inherit those privileges and have the right to issue notes to the extent allowed to the defunct or seceding institution.

¹ *Obst: Geld- und Börsenwesen* (Stuttgart, 1921); see the chapter on *Banques allemandes* in Courcelle-Seneuil and Liesse: *Les Operations de Banque* (Paris, 1922).

By 1900, excluding the Reichsbank, there were only 7 Note-Banks left. Their total capital amounted to about 100 million Marks. According as these banks have disappeared or renounced their privileges, the Reichsbank has stepped into their shoes both in the amount of capital as well as in the amount of circulation of notes.

Since 1913 there have been only five Note-Banks in Germany. These are (1) the Bayerische Notenbank in Bavaria, (2) the Saechsische Bank in Saxony, (3) the Wuerttembergische Notenbank in Wuerttemberg, (4) the Badische Notenbank in Baden and (5) the Reichsbank (Imperial Bank) with headquarters at Berlin and some 480 branches throughout the country.

In 1913 the financial position (in Marks) of the first four Note-Banks was as follows :

	Capital	Circulation	Cash
Bayerische	7,500,000	66,055,000	39,197,000
Saechsische	30,000,000	54,697,000	34,243,000
Wuerttembergische	9,000,000	21,227,000	11,000,000
Badische	9,000,000	17,803,000	7,912,000

The total circulation of notes issued by these four banks came up to about 160,000,000 M.

In 1913 the highest circulation of notes by the Reichsbank amounted to 2,593,445,000 M. and the lowest to 1,711,700,000 M. The average for the year was 1,958,173,000 M. Compared to that of the other four note-banks combined, the Reichsbank circulation was therefore something like 13 times as great. This proportion might be regarded as more or less normal for the pre-war period.

The first post-war year (1919) finds the circulation of the four Note-Banks as follows :—

Bayerische	103,800,000 M.
Saechsische	84,700,000 M.
Wuerttembergische	31,700,000 M.
Badische	37,700,000 M.

The total thus rose from nearly 160,000,000 M. to nearly 258,000,000 M. This rise of 62 per cent is almost nothing compared to the phenomenal increase in circulation that took place at the Reichsbank during the war. In 1919 at one point the Reichsbank circulation rose as high as 35,698,369,000 M. The minimum of the year was 22,336,844,000 M. The year's average was 27,987,808,000 M.² And yet this was but the prelude, so to say, of the post-war inflation which need not be indicated here. Compared to 1913, the 1919 average was already nearly 1429 per cent as great. And at any rate the Reichsbank was to the four other banks as 108 : 1. This is to be taken in the perspective of the pre-war 13 : 1.

Although these four institutions are not very important in the finance-market of the German Empire, the post-inflation bank-reconstruction of 1924 has not considered it expedient to deprive them of their character as note-banks. The Act permits them to issue notes in the following maximum proportions :

² *Die Reichsbank 1901-1925* (Berlin, Druckerei der Reichsbank).
Tabelle 10.

Bayerische	70,000,000 Reichsmarks
Saechsische	70,000,000 R.M.
Wuerttembergische	27,000,000 R.M.
Badische	27,000,000 R.M.

The total is thus not to exceed 194,000,000 R.M.

This right is conceded to them until January 1, 1935. On that date the privilege may be withdrawn or otherwise curtailed for the first time. Later also, every ten years the withdrawal or curtailment may take place with a notice of one year. In any case no indemnity is to be paid to the banks. The German Empire is thus committed to the ideal of a unitary note-institution for the entire territory to be centralized in the Reichsbank.³

The Reichsbank was established in 1875. The then Bank of Prussia was, like the institutions of Bavaria, Saxony, etc., a government Note-Bank. But it was dissolved to make room for the Reichsbank which was not to bear the name of any particular state but of the newly founded German Empire. Its biography as indicated in the history of its circulation down to 1923 (including the five years of post-war inflation) is exhibited below:—

Year	Average circulation in percentage amount	of the figure for 1876	Maximum circulation	Minimum circulation
1876	684,866,000	100	777,677,000	621,089,000
1896	1,083,497,000	158.2	1,257,925,000	973,484,000
1913	1,958,173,000	285.9	2,593,445,000	1,711,700,000
1921	78,619,471,000	11,479.5	113,639,464,000	65,519,877,080
1922	...	...	1,280,1 milliards	111.9 milliards
1923	...	...	496.5 trillions	1,336.5 .. *

³ Neufeld: *Das Bankgesetz and das Gesetz über die Privatnotenbanken* (Berlin, 1925), p. 119.

The reconstructed Reichsbank began its first year (1924) as follows :

Amount	Average circulation in percentage of the figure for 1876,	Maximum circulation	Minimum circulation
R.M. 1,068,465,000	155	R.M. 1,741,440,000	R.M. 1,484,249,000

One is here reminded of the figures for 1896.

Paper-Money vs. Bank-Notes

Bank-notes constitute paper-money and are issued by the authorized banks while making payments for large sums. As substitutes for gold which they possess and preserve in their vaults, they circulate promissory paper. Bank-notes, then, are really documents of debt contracted by the banks and are covered in their entirety by corresponding amounts of precious metals.

The states, however, have allowed the Note-Banks to issue notes beyond their metallic cover in order to add to the medium of circulation. Down to 1924, the German practice consisted in the *Drittelsdeckung*, i.e., cover to the extent of one-third. The Note-Banks considered it to be safe enough to have a third of all the circulated notes covered by gold and possess at all times the same amount of this metal for cash payment if need be.

The old custom may in general terms be described as follows. The Note-Banks kept gold for one-third of all their notes. The other two-thirds were covered in two ways. First, they tried to possess good securities such as could be sold forthwith, should it have been necessary. And secondly, they kept bills of exchange

and other commercial papers such as were due in the next three months.

In reality, therefore, such bank-notes cannot be described as paper-money in the strictest sense of the term. They are essentially the substitutes for money. Paper-money, strictly so called, was not issued by any bank. It is the governments that issue this money in time of emergency, e.g., during the late war. As a rule, it is not convertible into metallic money.

As example of paper-money may be mentioned the *Reichskassenscheine* of Germany i.e. the Imperial Treasury Bills which were instituted by the German federal government in accordance with the law of 30th April, 1874. They did not have their origin with the Reichsbank. These were not covered by gold and were not convertible into gold. While thus on the one hand they possess the essential characteristics of paper-money, on the other they are fundamentally distinct from bank-notes. A government ventures to issue paper-money only when and if the people have confidence in its stability and financial transactions.

The *Reichskassenscheine* could not be issued in volumes of more than 120 million Marks according to the law which gave birth to this money. Their place in the Imperial currency system was therefore inconsiderable in normal times.

In 1876 the issue amounted to 44,808,000 M. and in 1913 to 46,202,000 M. only. The maximum during this period was reached with 75,439,000 M. in 1907, the year of the American crisis which had its repercussions on Europe.

Even during the war or in post-war inflation times

the *Reichskassenscheine* did not loom large in the monetary world. The highest circulation rose up to 100,259,000 M. only in 1920.

This sort of paper-money was indeed eclipsed by another sort, the *Darlehnskassenscheine* (Loan Treasury Bills) which during the first war-year (1914) appeared modestly as 871,168,000 M. but by 1922 reached the figure 238,472,581,000 M. In 1923 the 9,3 billion border was crossed. The loan treasury bills were abolished in 1924.¹

The Reichsbank Act of 1875

The total circulation of the four "privileged" Note-Banks ranged in pre-war years generally, as we have seen above, about 150-200 million Marks. Their economic importance in the financial world of Germany has ever been very small. Moreover, the law of 1875 enjoins that these notes may be used as money only when payments are to be made to the Reichsbank. According to the Act of 1924 also they are not "legal tender." No provincial legislation (Bavarian, Saxon, etc.) is authorized to raise them to this status. Naturally, therefore, their field of operations is hardly worth one's notice in an examination of the currency system of the German Empire. For all practical purposes the Reichsbank was the only Note-Bank of Imperial Germany. It has continued to be so under the federated German Republic. Its position as such has indeed been strengthened by the provisions of the Act of 1924.

The Reichsbank is an *Aktiengesellschaft*, i.e., a

“public” joint-stock company with the right to place its shares on the market. The institution is thus legally on the same footing as any other industrial or commercial concern. It is not to be regarded as a state-bank, as it popularly very often is. The Act of 1924 says expressly that the Reichsbank “*ist eine von der Reichsregierung unabhaengige Bank*” (a bank independent of the Imperial Government). Incidentally, it may be observed that neither the Bank of England nor the Banque de France is a state-institution.

But previous to 1924 the administration was controlled by the government. The president was one of the highest Imperial officials. A portion of the profit belonged to the government. The interests of the share-holders could not therefore play the predominant role in the management of this institution. The “public” interests of the Empire received an adequate attention.

The charter was renewed in 1899 and then the capital was fixed at 180 million Marks (=about $13\frac{1}{2}$ crores of Rupees). By the law of 1911 maximum dividend was fixed at $3\frac{1}{2}$ per cent. The profits above this amount were to be divided in the following manner:— $\frac{3}{4}$ ths were to go to the state and the remainder to the share-holders. A reserve fund was to be built up by each party contributing 10 per cent of its realized profits.

The law of 1875 permitted the Reichsbank to issue notes of higher denominations only,—namely, for 1000 and 100 Marks. By the law of 1906 the 50- and 20-Mark notes were authorized. The 10-Mark notes were unknown previous to 1920.

The notes of the Reichsbank were made “legal tender” for the first time by the law of 1909. But it

need be observed that since 1875 they have always been accepted as such even without a legal compulsion.

The Act of 1875 placed, theoretically speaking, no restrictions on the amount of notes circulated by the Reichsbank. But a practical limit was imposed. For, it was under obligation to pay a tax of 5 per cent per year on all uncovered circulation exceeding 550,000,000 Marks.

Although the circulation was unlimited the law imposed restrictions on the kind of business that could be conducted by the Reichsbank. This Note-Bank was not to enter into competition with the other banks in the commercial world. It was, therefore, practically impossible for this credit-institution to create the medium of circulation in the form of bank-notes in unlimited quantities according to its own desires. The Reichsbank's power of circulating the notes was thus unlimited within the limited field of its business operations. The nature of the businesses, besides, rendered it virtually impossible for the Reichsbank to tread on dangerous grounds so that there was hardly any likelihood of its losing the power to cash the notes.

No Cover, No Notes

The cover was explicitly enjoined by the law.⁵ The Reichsbank had to have at least one-third of the notes in circulation guaranteed or pledged for in one of two forms. It might be the German money including the *Reichskassenscheine* (Imperial Treasury Bills). Or gold

⁵ Cf. *Die deutsche Geldverfassung und ihre Reform* in Schumacher: *Weltwirtschaftliche Studien* (Leipzig, 1911).

in bullion might be kept in the vaults. There was no objection to keeping gold in the form of foreign coins. In any case, one pound of gold was to be regarded as equivalent to 1392 Marks. In the matter of securities the Reichsbank was thus not entitled to self-determination. The "paper currency reserve" was fixed by statute.

So far as cash in the form of gold is concerned, there was no doubt about the securities possessing a metallic basis. For, both bullion and foreign coins constituted solid metal. And since the mint was free and coins could be had by everybody who presented gold to it the gold portion of the Reichsbank's cover was as good as German gold currency.

But the injunction relating to the other form of the cover, viz. "German money including the *Reichskassenscheine*," left plenty of loopholes for the invasion of the Reichsbank by paper money. For, in regard to this item there was no compulsion as to the amount of gold-money. In the first place, the *Reichskassenscheine* was nothing but paper. And secondly, "German money" was not all gold. For there were nickel, copper and silver coins as well.

From the standpoint of those who want a wholesale gold cover for one-third of the notes, the law of 1875 was therefore defective. If the Reichsbank wanted to take advantage of the weakness of the legal provisions, the situation might often be financially serious. But as a commercial institution the Reichsbank always found it expedient to look to its own safety by keeping more solid covers and better class cash than enjoined by law.

It must be observed that like the other Note-Banks of Germany the Reichsbank was also compelled to have

the remaining $\frac{2}{3}$ ds of the circulated notes covered by good securities (although not "cash" as explained above). As a rule, these were to be due in 3 months and to possess two signatures.

Suppose the Reichsbank had a circulation of 100,000,000 Marks in notes. The cover (or pledge) as sanctioned by the law of 1875 might then be indicated as follows:—

I "Cash,"—either

(a) German money

- (i) gold coins,
- (ii) silver coins,
- (iii) nickel and copper coins,
- (iv) *Reichskassenscheine*

33,333,333 $\frac{1}{3}$ M.

or

(b) gold

- (i) bullion,
- (ii) foreign coins

II "Securities"

- (a) "gilt-edged" so to say
- (b) bills due in 3 months

66,666,666 $\frac{2}{3}$ M.

The entire note-circulation of the Reichsbank was thus covered. But a certain amount of uncovered note-issue was also sanctioned by law. The maximum, however, was 550,000,000 M.

Should, however, this privileged limit have to be exceeded, the excess must have to be fully covered by "cash" as defined above. Or a tax of 5 p.c. per annum was to be paid to the state as long as this excess was in circulation.

But altogether the German currency system looked upon every piece of note as but equivalent to or identical

with money or other values held as pledge. "No cover, no note" was the principle in actual operation at the Reichsbank, subject to the little privilege noted above.

The economic crisis of the United States in 1907 had its repercussions on Europe. And Germany had to feel the shock quite acutely. The Reichsbank was compelled (i) to increase its circulation and (ii) to lower the amount of cash and other pledges. In 1906 and 1907 the "average" cover for the notes ranged between 64.1 and 68.4 p.c. In 1902, it was 82.8 p.c. In 1907, at one time the exact amount of notes in circulation was as high as 1,275,000,000 M. while the cash was as low as 776,000,000 M.

It is clear that the Act of 1875 did not identify cash (*Barvorrat*) with gold. The cash cover for the notes was therefore different from the gold cover. Note for note, the proportion of gold cover was less than that of cash cover because cash included other metals as well as *Reichskassenscheine*, besides gold. The percentages (average) of cover are indicated below chronologically.⁶

Year	Average gold cover	Average cash cover
1876	41.9 p.c.	82.5 p.c.
1891	60.7 p.c.	95.2 p.c.
1907	42.9 p.c.	64.1 p.c.
1913	54.5 p.c.	72.0 p.c.
1918	17.5 p.c.	...
1919	5.3 p.c.	...
1920	2.08 p.c.	..
1921	1.35 p.c.	..
1922	0.34 p.c.	...

6 *Die Reichsbank* 1901-1925, Tabelle 16.

Down to 1913 the "one-third" principle in regard to cash cover was very liberally followed. The lowest figure, 64.1 p.c., in 1907 was almost double the legally required amount. And as regards the gold element in the cash cover, although there was no legal compulsion, the Reichsbank made it a point to observe extremely cautious practices. Even the lowest, namely, that of 1907, which came down to 42.9 p.c. gold cover for all the notes in circulation was much higher than the statutory *Drittelsdeckung* for the entire cash cover. The gold cover alone, even without any other cash, would have been more than enough to meet the requirements of the law. Indeed much above the 40 p.c. gold cover provided for by the Act of 1924 was factually in force throughout the period from 1876 to 1913.

Two features of the pre-war German currency may here be specially noted. First, gold might be accepted by the Reichsbank in unlimited quantities in order to be coined into money. In the second place, in exchange for money in any form possessors might obtain gold bullion of equal values. This indeed is but a normal item in genuine gold-standard states or epochs.

The Reichsbank Reconstructed (1924-29)

The account furnished above belongs now to history. A fundamental reorganization,—a really thorough over-

7 *Die Reichsbank 1901-1925* (Berlin); Neufeld: *Das Bankgesetz und das Gesetz über die Privatnotenbanken* (Berlin, 1925); Koch and Schacht: *Münz- und Bankgesetzgebung* (Berlin, 1926); Schacht: *Die Stabilisierung der Mark* (Stuttgart, 1927).

The constitution discussed here has reference to the provisions under the Dawes Plan (1924-29). To-day the situation is virtually the same so far

hauling of the Reichsbank,—has been effected by the Bank Act of 1924. The government of the institution thus reconstructed is vested in 5 different organs :—

(1) *Reichsbankdirektorium* or Directorate of the Reichsbank, (2) *Generalrat* or General Council, (3) Commissar for note-issue, (4) General Assembly of Shareholders and (5) Central Committee of Share-holders.

The most important organ from the standpoint of bank-technique is the Directorate, because it regulates the currency, discount and credit policies. It is to consist of as many members as are likely to be required. One of them is called the president. All the members of the directorate must be German citizens. The simple law of majority is the general rule. In case of equal division the president exercises the casting vote.

The president is elected by the "General Council" in such a manner that there is a majority of 9 in his favour of whom at least 6 are Germans. No non-German has thus any possibility of being elected. But the contrast with the situation previous to 1924 is marked. The president in those days used to be appointed by the government and was in all respects a government official. Now he is elected by a council over whom the government has hardly any control and which indeed is composed, as we shall see later, of a large number of non-Germans. He can also be dismissed by the "General Council." Be it observed, however, that the letter of appointment on the strength of which the president joins his office is signed

as bank-administration is concerned. But there is one great difference in in so far as the Young Plan (1929-) has enfranchised the management from the control by non-Germans.

not only by those members of the "General Council" who took part in his election but also by the Reichspraesident, i.e., the President of the German Republic. And in this connection it is no less important to observe that the Reichspraesident can refuse to sign the letter of appointment, compelling the "General Council" to institute a second election. Should the Reichspraesident care not to sign to the appointment of the second nominee, a third election is to be held. Even then the Reichspraesident may refuse to sign and in that case the president of the Reichsbank assumes office although the letter of appointment is not signed by the Reichspraesident.

The tenure is for 4 years. He can be re-elected.

The members of council of the old Reichsbank were appointed by the government. But the Direktorium of the new Reichsbank is like the president an entirely independent body. The members are elected by the "General Council" in the same manner as the president, i.e., with a majority of 9, of whom 6 must be Germans. The letters of appointment, however, are not signed by the Reichspraesident but by the president of the bank. The first Direktorium was composed of members divided into three different age-groups and their tenure was from 4 to 12 years. They can all be re-elected and they are then to hold office for 12 years each. But everybody must retire at the age of 65.

On account of serious reasons the "General Council" may dismiss the president, but according to the law of majority described above. The other members of the Direktorium can also be dismissed by the General Council in a similar manner but with the approval of the president.

It is interesting to observe that there is no provision by which the government can control the functions of the Direktorium. Its independence in a legal sense is perhaps absolute. Equally interesting is the fact that the Direktorium is in its technical bank functions almost thoroughly independent of the "General Council", although elected by the latter.

The "king-maker" of the Reichsbank is the Generalrat, the general council, a peculiar institution, the like of which is not to be found in any other note-bank or central bank. Of the 14 members composing this body half are Germans. The seven non-German members come from England, France, Italy, Belgium, U.S.A., Holland and Switzerland. The president of the Direktorium is one of the seven German members. He is likewise the chairman of the "General Council." The commissar for note-issue is one of the seven foreign members of the council. The number of German members may be increased but that of foreigners cannot.

Two important bank-technical matters require the authorization of the General Council. No long-period government loans may be accepted as securities in bank business without the permission of this body. Besides, whenever it is necessary to violate the law of the 40 p.c. cover for notes the sanction must come from the General Council.

Only German share-holders of the Reichsbank have the right to elect the German members of the General Council with the exception of the president. The first foreign members were nominated by the organization committee. In the case of subsequent members the rule has been laid down that the vacancy is to be filled up

according to nationality but all the seven foreign members are to vote. The election is to be unanimous minus one.

The commissar for note-issue is elected by the General Council from one of its foreign members. There is to be a majority of nine votes of whom at least six are foreign. In case a non-member of the General Council is elected, his national on the General Council has to retire. As soon as the commissar is elected he becomes a member of the General Council for 4 years.

The commissar is to obtain every day from the Direktorium all facts and figures bearing on the notes and note-covers. He is the authority in regard to the preparation, issue, withdrawal and destruction of notes and responsible likewise for the control of notes according to the law. He has the right to attend the meetings of the Direktorium.

The general assembly of share-holders is composed of every registered share-holder. Only those who are present in meetings have the right to vote. The number of votes depends on the nominal value of the shares in the possession of each.

One share, one vote. But not more than 300 votes can be combined in one person. Simple majority decides, but in case of an equal division the deciding factor is the nominal value of the shares.

The report of the administration is presented to the general assembly every year. The balance sheet, profit and loss account as well as distribution of profits are all decided by it in accordance with the provisions of the law. It has also to decide on the alterations in statutes suggested by the Direktorium with the approval of the General Council. It cannot, however, take the initiative in this

regard. The general assembly of share-holders has further the right, through its German members, to elect the German representatives of the General Council.

The *Zentralausschuss* or central committee is a committee of experts elected by the general assembly of share-holders, both German and foreign combined. But none but German share-holders can be elected to this committee, which is a permanent body, whose advice the Direktorium is at liberty to draw upon if necessary. These experts are to be elected from the banking business, industry, commerce, agriculture, handicraft and working men at the suggestion of the Direktorium. Representatives of this committee may be invited by the Direktorium to take part in its proceedings.

The compulsory foreign elements in the administration of the new Reichsbank are not to be treated as normal items. They are to be ascribed to the peculiar conditions that have led to the birth of this institution. It is the War, the Versailles Treaty, the Dawes Plan and the Reparations Commission that account for the extraordinary features of the present constitution.

•

From "One-third Cover" to "Gold-Cover" (1924)

Since the publication of Knapp's *Die staatliche Theorie des Geldes* (1905) the "nominalistic" theory of money has had a great vogue in Germany. During and since the war the theory has been very strongly championed by a number of currency experts, for instance, by Dalberg (*Neue Deutsche Währung*, "New German Currency," 1924, *Die Entthronung des Goldes*, "The Dethronement of Gold," *Die Entwertung des Geldes* "The Depreciation of Money," 1919). But the

"metallistic" theory has persisted, although to some extent shaken and modified, and finally succeeded in maintaining its ground in actual legislation as embodied in the Bank Act of 1924. Instead, therefore, of emancipating the currency from gold and establishing it on the note as credit-instrument the new Reichsbank has accepted the principle of the gold-standard with vengeance.

In the first place, the traditional German custom of *Drittelsdeckung* or one-third cover for notes has been abolished. And in the second place, *Gold-deckung* (Gold-cover), which was but optional or discretionary in the old Reichsbank, has been made compulsory in 1924 and the proportion has been fixed at a high level.

The new legislation compels the notes to be covered in their entirety in the following manner :—

1. *Gold-deckung* (Gold-cover) 40 p.c.

(a) actual gold (30 p.c.):

1. gold bullion, 2. German gold coins,
3. foreign gold coins.

All this gold may be held either in the Reichsbank itself or in a foreign central bank on current account. Fine gold is defined in such a manner that one pound makes 1392 Reichsmarks.

(b) *Devisen* (10 p.c.):

1. bank notes, 2. bills of exchange maturing in 14 days at the latest, 3. cheques,
4. daily bills payable in foreign money in a foreign finance-centre by a bank known to be solvent.

All these instruments of paper money are to be evaluated at their gold-worth for the purpose of calculation.

II. Business Securities or Commercial Papers 60 p.c.

- 1. bills of exchange such as mature in not more than 3 months, possess the signatures of 3 solvent parties, and represent good commercial dealings may be discounted and kept as cover.
2. cheques, such as bear the signatures of 3 solvent parties may likewise be discounted and used as cover.

In either case the third signature is not required should the bill or the cheque be pledged for by a special security.

Gold-deckung is the chief feature of the new regulations. But the "gold-cover," it is to be noted, is not all "national." The "foreign" element is conspicuous, although optionally, in both the metallic as well as the *Devisen* portions of the gold "reserve." The Act permits the reserve to be kept abroad.

The foreign element is to be observed also in the compulsory appointment of a foreigner as the commissar or controller for notes as well as the existence of foreigners in the *Generalrat* or General Council.

The old Reichsbank possessed the privilege of issuing uncovered notes not exceeding 550,000,000 M. This privileged limit might be exceeded on the payment of a fine.

But the reconstruction of 1924 has deprived the Reichsbank of this privilege. The principle of "no cover,

no note" has at last been realized without any qualification.

In regard to the cover, especially the gold-cover, however, the new Reichsbank has been furnished with certain leniencies subject to the approval of the General Council. The circumstances must be exceptional, the suggestion has to come from the Direktorium, and the approval must be unanimous minus one.

The 40 p.c. gold-cover may then be obviated on two conditions. First, a tax is to be paid by the Reichsbank to the government according to a statutory scale. In case the reduction of the cover is necessary for more than one week, the tax is to be as follows :—

	per year
Gold-cover between 37 and 40 p.c.—	3 p.c.
„ „ 35 „ 37 p.c.—	5 p.c.
„ „ 33½ „ 35 p.c.—	8 p.c.
Gold-cover less than 33½ p.c.—8 p.c. together	
with 1 p.c. per year for every per cent by	
which the cover is less than 33½ p.c.	

The second condition on which the gold-cover may be reduced runs to the effect that, first, the rate of discount is not to be lower than 5 p.c. during the entire period, and secondly, the rate of discount is to be raised by at least one-third of the tax, whenever it has to be paid to the government.

III. *Sonder-deckung* or special cover (40 p.c. of daily liabilities).

In addition to the above cover for notes, the law of 1924 compels the Reichsbank to provide itself with a

1. Reichsbank's day to day deposits in Germany.
- 2. „ „ „ „ abroad.
3. Cheques on other banks (both German and foreign) in favour of Reichsbank
4. Bills of exchange with a duration of not more than 30 days.
5. Loans (*Lombarddarlehn*) made by the Reichsbank such as may be recovered from day to day.

The law says, further, that this 40 p.c. cover for daily business is to be kept separately from the amount kept by the Reichsbank to the credit of the Reparations Commission, which normally is not to exceed 2 milliard Marks.

The daily deposit and other liabilities of the Reichsbank are thus to be met out of a standing 40 p.c. reserve in the shape of its daily and short-period claims. This reserve is to serve not only as a cover for the ordinary banking transactions of the Reichsbank but as an indirect strengthening of the cover for the note-issue as well. The cover, security or protection of the "issue department" has been by this measure rendered independent of the cover, security or protection of the "banking department." The possessors of notes as creditors of the Reichsbank do not therefore have to compete with the depositors and other creditors.

But if the ordinary banking liabilities were not provided for in this special manner the Reichsbank as debtor to the depositors and other creditors might often be forced to utilize the cover or reserve for the notes. The statutory establishment of the *Sonderdeckung*, the special "banking reserve," has thus assured afresh a perfect security to the note-cover, the issue department, or the "paper currency reserve." The legal provision for this banking reserve as distinguished from that for the note-reserve in the Act of 1924 may be traced, be it noted incidentally, to the idea propagated by Helfferich in *Zur Erneuerung des deutschen Bankgesetzes* (On the Renewal of the German Bank Act) in 1899.

Note-Legislation in England (1844-1928)

It has to be noticed that the German note-system was essentially British in its fundamentals. The British (Peel) Act of 1844-45 regulates the note-circulation of the Bank of England. Under the provisions of this legislation the Issue Department has been thoroughly divorced from the Banking Department of the Bank. The note-issue has consequently been separated from its other operations.

We may indicate the main clauses of this legislation relating to the cover for notes in the following manner :—

- | | |
|---------------|---|
| I. Securities | } £14,000,000
("Fiduciary" note issue). |
| i. government | |
| ii. other | |
| II. Gold | } The whole of the remainder, no
matter what amount. |
| i. bullion | |
| ii. coins | |

Down to 1853, 25 p.c. of the bullion might be kept in silver. But since then silver has been discontinued. And the bullion consists exclusively of gold.

In 1889 the amount of securities that could be held as pledge against note-circulation was raised from £14 millions to £16,450,000.

In 1914 the Currency and Bank Notes Act authorized the note-bank to issue bank-notes in excess of any limit fixed by law. This was a temporary measure. In 1919 a maximum limit was imposed. And it was decided that the actual maximum "fiduciary" (i.e., uncovered by gold) circulation of currency notes in any year should be the fixed maximum for the following year. For 1920 this maximum was £320,600,000.

In July 1928 the "fiduciary note-issue" was fixed at a permanent maximum of £260,000,000. The position may be indicated as follows :—

I. Fiduciary Note-issue

1. Government securities	}	£260,000,000
2. other securities		
3. silver coins worth £5,500,000.		

II. Covered by gold	}	The whole of the remaining note-issue.
1. coins		
2. bullion		

The principle has remained the same as in 1844.

In other words, with the exception of the maximum against which securities can be held the entire circulation is to be covered by gold. In the British system, then, we

have the same principle as in Germany, namely, "no cover, no note." Every note is a coin-certificate, and is identical with gold-money.

But between the British and the German systems there were wide differences relating to the character or quality of the cover. And these deserve prominent notice, especially as indicating, perhaps, how far the German law of 1875 while imitating the British Act of 1844 tried to introduce certain new features likely to impart elasticity to the currency system.

The Bank of England is not permitted to issue notes beyond its gold. The note-circulation is limited by the amount of gold possessed by this institution. As for the securities, however good they be, there is a maximum fixed. We may, then, say that the system is not merely one of "no cover, no note"—but really has its foundations in the principle, "no gold, no note." In other words, the British paper currency reserve is virtually all gold (but see *infra*, p. 53).

The old Reichsbank (Act of 1875), on the other hand, was very much emancipated from gold. The "securities" played here the preponderant role. No matter how large the volume of notes issued by the Reichsbank, two-thirds could always be covered by the securities in its possession. But in the British system the securities play but the second fiddle. The larger the volume of notes issued by the Bank of England, the larger must be the amount of bullion in its coffers, and the proportion of the securities (£260,000,000 maximum) to the notes or to the bullion becomes less and less.

The place of gold-cover in the Reichsbank's system was to be found in the "cash," compulsory on the

Drittelsdeckung principle. But here, again, there was an alternative. The so-called "cash" might consist either of gold or the "German money." Supposing that it was all gold, the currency was assured at least of one-third of the note-issue as guaranteed by gold. But should the cash cover have been only "German money," there was no compulsion as to the amount of gold to be held. The law was lenient enough to include even the *Reichskassenscheine* (Imperial Treasury Bills), which had no metallic basis and constituted pure paper-money, although issued in small quantities, in its list of "cash". We have already noticed this defect in the law of 1875 as apparent from the definition of the "cash."

The Reichsbank accepted the principle of the Bank of England but took a forward step in the application of this principle. The German currency system did not consider gold to be the only or the chief reserve or cover against note-circulation.

Another step ahead of the British system was embodied in the German legislation of 1875. It consisted in the facts (1) that a certain amount of wholly uncovered or unguaranteed note-issue (550,000,000M.) was possible and (2) that even this privilege might be exceeded under certain conditions as described above.

It is evident that the Currency and Bank Notes Act of July 1928 does not compel the Bank of England to adopt the principle of "proportional" gold-cover. And yet it is doubtful whether the old rigidity according to which one might almost say that the British system was based essentially on the principle, "no gold, no note," is being factually maintained today.

On 28 November, 1928, the Issue Department of the

Bank of England published the following weekly statement about its notes and cover :⁸

Notes (Liabilities) :

1. In circulation	...	£367,001,148
2. In the Banking Department	...	£52,087,797
		<hr/>
Total	...	£419,088,945

Cover (Assets) :

I. Fiduciary (i.e., not gold)	...	£260,000,000
1. Government Debt	...	£11,015,100
2. Other Government Securities	...	£233,568,550
3. Other Securities	...	£10,176,193
4. Silver Coin	...	£5,240,157

II. Gold

1. Coins	}	£159,088,945
2. Bullion		

⁸ Leduc: *La Reforme Monetaire Anglaise* in *Revue d'Economie Politique* (Paris) for Nov.-Dec., 1928. That "greater elasticity" has hardly been introduced by the new Act is maintained by Keynes in his article on "The Amalgamation of the British Note-Issues" in the *Economic Journal*, London, for June, 1928. On April 29, 1931 the Bank of England returns gave the following figures: Notes (in circulation and Banking Dept.). £406,279,564; Gold-cover, £146,179,564. The proportion of cover to issue was therefore 35.9 per cent. Since the suspension of the Gold Standard in September 1931 the proportion has been coming down. Thus on April 27, 1931 the corresponding figures were £395,815,666, £120,815,666, and 30.5 per cent.

Since August 1, 1931 an increase of £15,000,000 in the fiduciary issue has been authorized for the legally maximum period of two years (in accordance with sect. 8 of the Act of 1928).—*Federal Reserve Bulletin*, May 1932 (Washington 1932), p. 323.

In other words, in a circulation of £419,088,945 the compulsory gold-cover was only £159,088,945. This came up to about 38 p.c. And, of course, should it be necessary to issue more "fiduciary notes," as is quite possible under the Act, the proportion of gold-cover can only become less. In any case, whatever be the theoretical principle and however conservative or traditional the British legislation might appear to be, the pressure of economic circumstances,—the school of monetary experience,—has tended to bring about a pragmatic affinity between the Reichsbank and the Bank of England in *Realpolitik*.

The *Gold-deckung* introduced by the Act of 1924 has indeed introduced the principle of compulsory gold reserve. The amount of notes thus covered by gold is also very high. But still the deviation from the British system is as great in the new Reichsbank as in the old. The gold reserve plays but a secondary role in the German institution from the standpoint of bank-technique. The British Act of 1928 continues perhaps to be almost as rigid in this regard as was the Act of 1844 whereas the elasticity introduced in Germany by the Act of 1875 pervades the legislation that has brought the new Reichsbank into being.

*The French Practice in Note-Banking (1800-1848)**

If the German note-legislation of 1924 as of 1875 is quite liberal compared with the British (1844, 1928), the century-old French legislation would consider even

9 Courcelle-Seneuil and Liesse: *Les Opérations de Banque* (Paris, 1922), pp. 235-257; Kaufmann and Sacker: *La Banque en France* (Paris, 1914).

the German to be very conservative. For, the Banque de France was not circumscribed in the matter of note-issue by any regulations relating to the cover. Not to speak of the principle, "no gold, no note," even the simpler "no cover, no note" was unknown in the French currency legislation, say, from 1800 to 1927.

Some of the early years of the Banque de France may be envisaged in the following figures in millions :

	Cash	Bills	Notes
1812 (beginning)	114	15	117
1814 (18th Jan.)	14	31	38

During the critical period of 1846-1848, the actual situation was as follows :

	Cash	Bills	Notes
1846 (end of Dec.)	71	188	258
1847 (,,)	107	157	233

Even without law, the proportions of cash to the notes held by the Banque were not unreasonable even by the modern standard.

During this period 8 different note-banks were established in different parts of the country. The monopoly of the Banque de France was thus challenged. The dates and localities are indicated below :—

1. 1817	Rouen	5. 1835	Marseilles
2. 1818	Nantes	6. 1836	Lille
3. 1818	Bordeaux	7. 1837	Havre
4. 1835	Lyons	8. 1838	Toulouse

The business conducted by these institutions ran according to the strict regulations of their respective charters.

The operations of these 8 banks of issue can be gauged from the following figures (in millions) :

Year	Cash	Bills	Notes
1841	30	51	63
1846	44	77	86
1847	42	85	90

The proportions observed by these departmental or district issue-banks could stand competition with that of the Banque de France.

The year 1848 is important as having closed what may be described as the preparatory first chapter in the history of French Note-Banks. For the first time the principle of maximum circulation was adopted (350 millions, March 15. It was decided to publish balance sheets every week. Besides, all the nine *banques départementales* were absorbed by the *Banque* according to the decrees of April 27 and May 2,¹⁰ which, further, raised the combined capital to 93,250,000 francs and fixed the maximum note-circulation at 452 millions.

The Principle of Maximum Circulation in France
(1848-1928)

The limit to the volume of notes that might be issued by the Banque de France is a special feature in issue-banking

¹⁰ *Lois et statuts qui régissent la Banque de France* (Paris, 1926); pp. 69-71, 72-73, 77-81, 82-83.

The ninth *banque départementale* is the one at Orleans which about this time possessed 1,000 shares valued at 1 million francs. This was the smallest of these district note-banks.

The Banque de France, founded or rather reconstituted by the law of April 22, 1806 and decree of Jan. 16, 1808,¹¹ for nearly half a century does not appear to have been bound down to any maximum. The maximum was fixed, as we have noted above, at 350,000,000 francs by a decree of March 15, 1848. During the Franco-Prussian War the maximum was raised to 2,800 millions (December, 1871). In 1884 the figure 3,500 millions was sanctioned by law. In 1897 it was raised to 5,000 millions (5 milliards), in 1911 to 6,800 millions, and in 1925 to 58,500 millions.

But although there was no statutory compulsion in regard to the relations between the issue of notes and the cover in gold or securities the history of the Banque de France indicates that the governors of this credit-institution have out-Germaned the Germans and even out-Englished the English in their practical solicitude for the safety of national credit and the country's reserve.

The actual proportion between cash and notes such as prevailed during the critical period of the 70's is indicated below :—

	Cash	Notes
Jan., 27, 1870	1,202,000,000	1,471,000,000
1871	398,000,000	2,359,000,000
1872	630,000,000	2,678,000,000
1873	705,000,000	3,071,000,000
1874	1,330,000,000	*
1875		2,600,000,000

11 *Lois et statuts qui regissent la Banque de France* (Paris, 1926); pp. 20, 28, 41. *Figures not available.

For subsequent periods the proportion (in millions) is as follows (daily average):—

	Cash	Notes
1880	1,974	2,305
1890	2,513	3,060
1897	3,184	3,687
1900	3,237	4,034
1905	3,956	4,408
1909	4,524	5,080
1913	3,927	5,665

It will be noticed that except during the years 1871-73 the cash amounted in value almost to the note-circulation. Literally speaking, the notes were very often covered to the extent of nearly 90 p.c. by metallic money. And this without any law corresponding to the English Bank Act of 1844-45 or the German law of 1875.

Cash, however, was not the sole cover for the notes during all these years. The commercial papers constituted about $\frac{1}{3}$ of the notes. We have the following figures of daily average (in millions):¹²

	Papers	Notes
1897	1,088	3,687
1900	1,367	4,034
1905	1,124	4,408
1911	1,842	5,243
1913	2,374	5,665

If we now add the cash (90 p.c.) and other securities (about 33 p.c.) we have a note-circulation covered 123 p.c., i.e., much above its volume.

The Banque de France may be said to have been very moderate in the issue of notes. It is doubtful if it has really rendered, except on rare occasions (1871-73), the services of a circulating bank, i.e., a note-bank. Its functions have mainly been, as it were, those of a simple deposit-bank. The Great War (1914-18) and the post-war developments have of course been extraordinary.

It may be remarked *en passant* that French authorities on money and finance have, therefore, as a rule been rather indifferent to the classical controversy in regard to the "theory" of note-banks. To them the problem, currency principle (on which the Bank of England's Issue Department is founded by Peel, 1844-46) *vs.* banking principle (as based on the teachings of Adam Smith and Ricardo) is essentially an academic one.

In reality, however, they do not believe that bank-notes are *identical* with money, as Peel does. Like Adam Smith and Ricardo the French economists, as a rule, are of opinion that the notes are "*substitutes* for money". According to them all that the note-banks need attend to is that the notes issued by them are immediately convertible into coin on demand of the possessors. And for this the banks have but to take the ordinary precautions of banking in regard to reserve, cash, securities, etc.. Whatever the banks do in order to assure the cashing of cheques, bills of exchange and other instruments of credit has to be done in the case of notes also. The French professors are, in other words, the adherents of the "banking principle."

In theory and legislation, then, the Banque de France was governed according to the "banking principle" while the Bank of England and the Reichsbank have been

governed according to the "currency principle." But it is curious that, this "philosophical" difference notwithstanding, all the three note-banks have evolved in their actual history fundamentally the same practice in regard to the relation between the cover and notes. Whatever be the form of the cover, gold, securities, etc., they all have developed the custom "no cover, no note." And this uniformity is due essentially to the technique of bank-management which involves the proper orientation to risks. Factually, therefore, the banking principle and the currency principle meet on the same platform.

A word may be added in regard to the exceptional circumstances since 1914.

The daily averages for the war-period can be envisaged from the following three entries (in million francs):

Year	Cash	Bills	Notes
1914	4,405	2,314	7,325
1915	4,709	928 + 2,399 under moratorium	12,280
1918	5,690	2,098 + 1,082 under moratorium	27,536

For the post-war period until the reorganization effected by the law of June, 1928, the note and reserve biography of the Banque de France may be indicated as follows:¹³

¹³ *Banque de France : Compte rendu*, (Paris, 1921-28), annual publication of the Banque.

Items	1920 (Dec. 31)	1927 (Dec. 31)
I. Cash	5,766,270,130	5,887,772,834
1. Gold in France	3,551,787,694	3,680,500,821
2. Gold held abroad	1,948,367,056	1,864,320,907
3. Silver	266,115,379	342,951,105
II. Discounted Papers during the year	32,023,610,600	45,291,262,600
III. Notes Issued during the year	7,847,125,000	15,155,000,000
IV. Total Notes in cir- culation.	37,552,240,290	56,300,610,250

The law of Dec. 4, 1925, fixed the maximum circulation at 58,500,000,000 francs, as noted above.

The proportion of post-war cash cover to the total notes in circulation is certainly much less than that of the pre-war period. But the cover represented by "good" commercial papers is noteworthy. In 1920 the average duration of the bills was near about 25 days and in 1927 only 18 days.

The "New" Banque de France (since June, 1928)

The post-war monetary reconstruction—"stabilization,"—may be said to have begun in France with the law of August 7, 1926.¹⁴ The Banque de France was

¹⁴ "La loi du 7 aout et son rôle dans l'assainissement financier de la France" in *Revue d' Economie Politique* (Paris) for Jan.-Feb., 1928. See

thereby authorized to buy “*devises*” (gold-covered or gilt-edged securities, bills, foreign currencies, etc.) and gold bullion in the exchange market. The year 1927 witnessed, as a consequence of the Banque’s active operations in this field, the “repatriation of French capital exported in previous years.” *Corresponding to the increase in the amount of *devises* and gold the Banque was also authorized to increase its note-circulation by the amount purchased so that the maximum circulation fixed by the law of Dec. 4, 1925, viz., 58,500 millions, could be automatically increased to the same amount. It was also possible to recover the French gold deposited with the Bank of England. 1927 thus marked a decisive stage in the financial and monetary restoration of France.

In 1928 “a new franc was created,” says the *Compte rendu* (Paris 1929) of the Banque de France. “After 14 years of forced currency the franc became again a genuine money (*une monnaie véritable*) no less solidly pledged for than the strongest monies of the world.”

The law of June 25, 1928, established gold monometallism and stabilized the franc at the rate prevalent for the previous eighteen months. It abolished the forced currency of the notes as legalized by the law of August 5.

Compte rendu of the Banque de France (Paris 1932) for the latest figures (in millions):

Year	Notes	Gold Cash
1930	76,155	53,563
1931	83,546	68,481

The proportion of gold cash to notes and current accounts was 53.03 per cent in 1930 and 60.57 per cent in 1931.

1914. The Banque was placed under obligation to assure the convertibility of its notes in gold bullion or coins.

The sum of 215,000 francs in notes was fixed as the minimum for which the public was empowered to obtain from the Banque an equivalent gold exchange or gold bullion.

All these provisions have reference to the stabilization of the currency and the re-establishment of the standard which will appear to be quite in conformity with the post-war restoration of currencies in different parts of the world. But so far as France is concerned, the official recognition of the fact that the old franc could not be restored and that the depreciation had to be legally accepted,—in one word,—“devaluation,” marks a revolution in the monetary history of France.

Equally revolutionary are the provisions of the law of June 25, 1928, in regard to the note-legislation. For the first time since 1806 has the Banque de France been compelled to observe the principle of a minimum cover for the note-issue. The gold cash (excluding the *devises*) must not be less than 35 p.c. of the total notes in circulation together with the current accounts of the creditors. The time-honoured principle of the legal maximum of note-circulation (e.g., 350 millions in 1848; 58,500 millions in 1925) has therefore been abolished. The 35 p.c. gold cover, it will be observed, is higher than the legal gold-cover provided for by the Reichsbank Act of 1924 which, as we have seen, is not more than 30 p.c.

Altogether, then, the century-old “banking principle” is abandoned by France in favour of the “currency principle” of the Bank of England and the Reichsbank. It is evident, however, that the more elastic

system—"proportional cover" of the Reichsbank—has been preferred by the Banque de France to the rigid British system of statutory maximum of fiduciary circulation.

The law of June, 1928, has introduced certain changes in the accounting and preparation of balance-sheet. On that date all the gold cash in the possession of the Banque was "revalued" at the new rate of exchange. The silver cash was likewise revalued and "demonetized" and made over to the government. The *Compte rendu* (Paris, 1929) publishes the account (in millions of francs) of the Banque for the second semester of 1928 in the following manner :

Date	Gold-cash	Notes	Percentage of Gold-cover for notes and current accounts.
25 June	28,935	58,772	40·45
7 Sept.	30,426	61,552	39·17
21 Dec.	31,835	61,914	39·32

During this period the gold-cover fluctuated between 39·17 and 40·45 p.c. of the *engagements a vue*, i.e., sight-engagements or daily and short-time liabilities. This is much above the legal 35 p.c. The proportion would be much higher if the *disponibilites a vue a l'etranger*, i.e., sight-claims or day-to-day and short-period assets abroad, be added to the *encaisse-or* (gold-cash) in the vaults of the Banque.

Even within the "proportional cover" group the difference between the new Reichsbank and the new Banque de France is very fundamental. The difference in the provisions of the two note-legislations cannot by any

means be overlooked. The 35 p.c. gold-cover in France is meant both for (1) notes as well as for (2) ordinary commercial credit, current deposits etc. But the 30 p.c. gold-cover in Germany is meant exclusively for notes. Ordinary banking functions of the German note-bank, viz. current deposits, etc. are legally covered by *Sonderdeckung*, special cover, which must be 40 p.c. of the interests involved, although not in gold-cash. In other words, the Reichsbank emphasises the distinction between the "issue" functions and the "banking" functions, considers the different forms of credit separately, and makes separate provisions for each. The Banque de France, on the contrary, continues to consider both note-issue and deposit or other banking as but credit, pure and simple. It does not therefore make special provisions for each form of credit. One lump cover (in gold) of 35 p.c. is considered to be enough to take care of both kinds of credit transactions.

It is to be noted, besides, that the German law categorically describes the kind of cover that is compulsory for the remaining 70 p.c. of note-circulation, whereas the French law is naturally silent on this point. France, although she has at last accepted the compulsory principle of proportional cover, is still following her traditional policy of freedom.

And compared to the conservatism and cautiousness of the British institution the French system today possesses not only the elasticity of the Reichsbank but goes beyond it in its liberation and emancipation from statutory control in regard to the reserve for paper-money or for ordinary banking. Here, indeed, we encounter the "banking principle" in a new guise.

Commercial, Reserve and State Banking of Note-Banks

Like all other German banks the Reichsbank does its own commercial business in the usual manner. But as with the Bank of England, with the Reichsbank also the ordinary commercial business is relatively small compared to that of the other big institutions of Germany.

The commercial business done by the Reichsbank in 1913 gave the minimum figure 874 million Marks and the maximum 1,732 millions. The business of the other banks, for instance, of the Deutsche Bank, Disconto-Gesellschaft, the Dresdner Bank, etc., each with a capital of 200 millions was more considerable. Thus the Deutsche Bank's transactions in deposit account alone amounted to 1580 millions. Deposit banking at the Dresdner accounted for 958 millions and at the Disconto for 674 millions.

The discounts and loans of all sorts at the Deutsche Bank amounted to 1550 millions, at the Dresdner to 942 millions and at the Disconto to 778 millions. These three institutions together exhibited in the item of discounts and loans an aggregate of 3,270 millions. This is almost the double of the entire commercial banking done by the Reichsbank. And of course there were other banks in operation at the same time.¹⁵

The Reichsbank's "active" (assets) commercial business (discounting of bills and advancing loans against securities) is indicated below :¹⁶

15 For ordinary commercial banking in its historical aspects with special reference to France and Germany, see the chapter on "Earlier Stages in Modern Banking" in Sarkar's *Economic Development*, Madras, 1926; Kaufmann and Sacker : *La Banque en France* (Paris, 1914).

16 *Die Reichsbank*, Tabellen 31, 40.

Date	Bills (<i>Wechsel</i>)	Loans (<i>Lombard</i>)
31 Dec. 1903	1,089,190,855 M.	146,226,700 M.
31 Dec. 1913	1,497,860,282 M.	94,472,800 M.
31 Dec. 1924	2,051,468,329 M.	16,960,200 M.

While the bill business has been growing the loan-business has been diminishing. The total for Dec. 31 1913, viz., 1,592,333,082 M. may now be placed in the perspective of the entire active commercial business of "all the other deposit banks" of Germany. The following figures for Dec. 31 1913 are furnished by the *Statistisches Reichsamt* of Berlin:¹⁷

Bills discounted	...	4,286,200,000 M.
Debtors	...	14,242,600,000 M.
Securities Purchased	...	5,588,500,000 M.
Mortgages	...	14,157,500,000 M.
Loans to Public Bodies	...	3,707,500,000 M.
Total	...	41,982,300,000 M.

In other words, in the "business" world of Germany the Reichsbank discharged but 3·8 p.c. of the services rendered by "all the other banks."

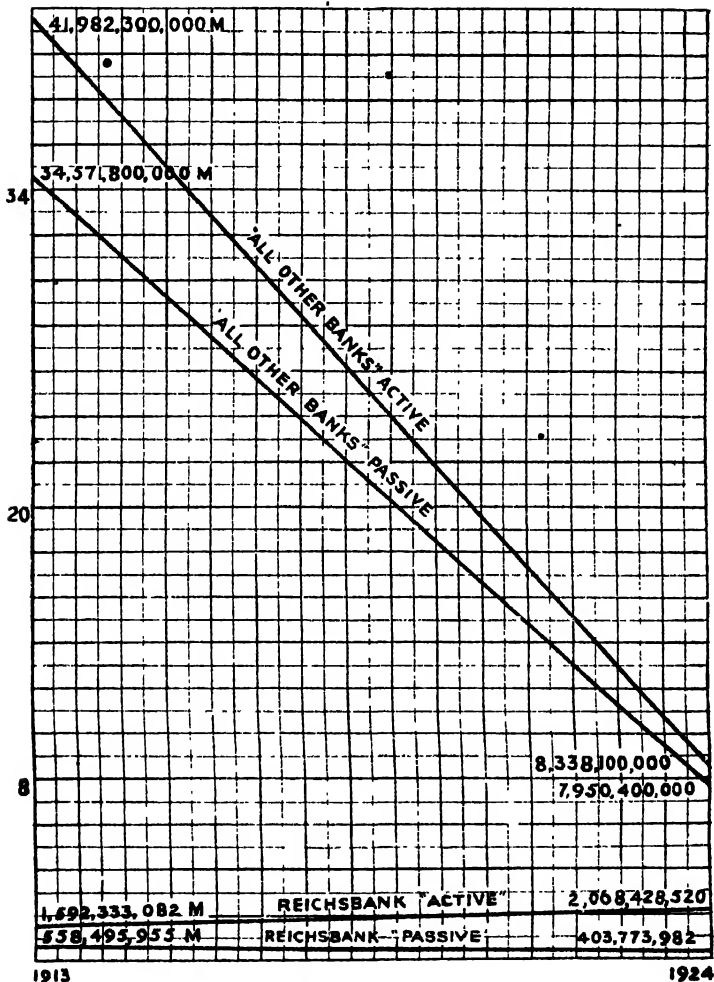
On Dec. 31, 1924, these same banks accounted for the following figures in "active" commerce:¹⁸

17 *Die deutschen Banken 1924 bis 1926* (Berlin, 1927), pp. 178-179.

18 *Ibid.*, pp. 178-179. Goldschmidt: *Das deutsche Grossbankkapital* (Berlin, 1928), Tabellen 5, 6, 7, 8 which give figures for 19 big banks. The figures are low as 1924 is the first post-war stabilization year.

CHART II

Reichsbank *visavis* "all other banks" in "active" and "passive"
banking (1913-24)



N. B. 1913 is the last pre-war year and 1924 the first "stabilization" year. Hence the rather low figures for 1924. But the chart shows in any case that in commercial banking the Reichsbank was always less important than the other banks.

(To face p. 66)

Bills	...	2,304,600,000 M.
Debtors	...	5,464,000,000 M.
Securities	...	314,300,000 M.
Mortgages	...	104,000,000 M.
Loans to Public Bodies	...	151,200,000 M.
Total		8,338,100,000 M.

The total for the Reichsbank on the same date was 2,068,428,529, i.e., 24·8 p.c. of the business done by the others.

The deposit ("passive," i.e., liabilities) business of the Reichsbank is indicated below :¹⁹

1 Jan. 1900	...	385,357,278 M.
1 Jan. 1913	...	558,495,955 M.
1 Jan. 1924	...	403,773,982 M.

On Dec. 31, 1913, "all the other banks" did deposit business²⁰ to the tune of 34,571,800,000M. This was about 62 times that of the Reichsbank on Jan. 1, 1913. On Dec. 31, 1924, the deposit business of the "other banks" accounted for 7,950,400,000 M. Their importance in this respect was 19·7 times that of the Reichsbank.

The tale from the French side is more or less identical with that of Germany in this regard.

The total "active" (assets) business of the "big three" of France, namely, Credit Lyonnais, Societe

¹⁹ *Die Reichsbank*, Tabelle 20. On 31 Dec 1931 the Reichsbank had "active" business in the bills and cheques line to the extent of 4,144 millions and deposits to that of 755 millions.

²⁰ *Die deutschen Banken*, pp. 178-179; Goldschmidt: *Das deutsche Gross-Bankkapital* (Berlin, 1928), Tabelle 16 (for 19 big banks).

Generale and Comptoir National accounted for the following figures :²¹

31 Dec. 1899	...	1,665,000,000 francs
„ 1905	...	2,760,000,000 „
„ 1912	...	4,200,000,000 „

The story is one of growth. It registers an increment of 40 p.c. in the course of some twelve years.

On the other hand, the bill discounting business of the Banque de France²² was, with a few exceptions, almost invariably on the declining curve from 1880 to 1905. The daily average is indicated below :

1880	...	758,500,000 francs
1890	...	669,600,000 „
1895	...	543,600,000 „
1901	...	592,400,000 „
1905	...	640,500,000 „

The private banks were depriving the Banque of this kind of commercial business. By 1912 its daily average rose indeed to 1,333,000,000 francs. But then, the "big three" combined were more than thrice as powerful as itself in this field. Even one of them, the Credit Lyonnais, possessed a portfolio of 1,411,000,000 francs.

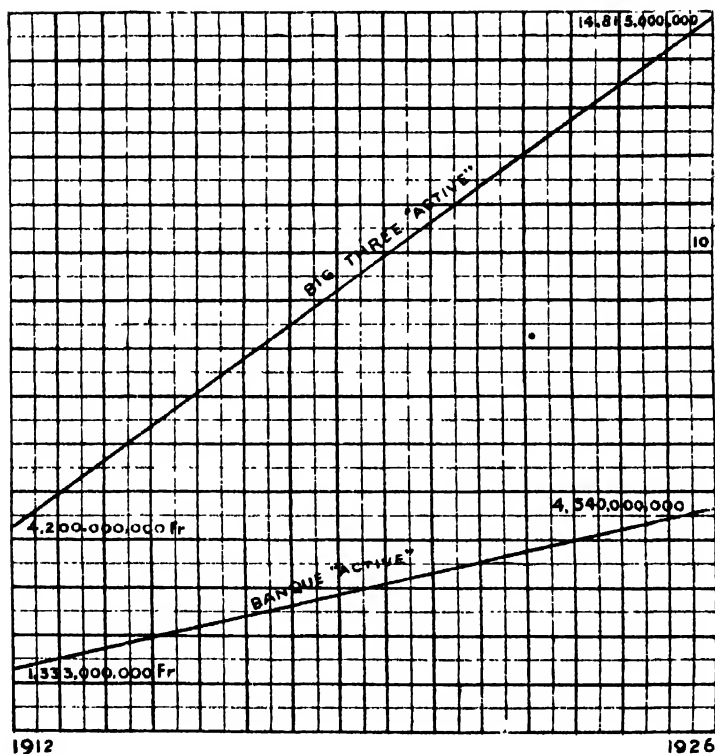
For recent years a comparative view²³ of the *portefeuille commercial* (discount business) in regard to

21 Kaufmann and Sacker : *La Banque en France* (Paris, 1914), p. 473.

22 Courcelle-Seneuil, pp. 276-277.

23 Caillet : *L'Aide à l'Industrie et La Liquidité des Capitaux* (Paris, 1928), pp. 165, 176; *Banque de France : Compte rendu. On Dec. 24 1931* the *portefeuille commercial* was 7,969 millions, 1926 was still an inflation year, Hence the figures for francs look rather high, compared to those in pre-war years. It is in 1928 that the new franc comes into existence.

CHART III
Banque de France visavis Big Three in "active" banking
 •
(1912-26)



N. B. 1926 is still an inflation year. Hence the figures look rather high. In gold francs they would be nearly 20%,—i.e. lower than the figures for 1912.

But in any case the chart is calculated to indicate that in commercial banking the Banque has always been less important than the Big Three.

(To face p. 68)*

the Banque as well as the big three may be seen below (in millions):

Year	Credit Lyonnais	Société	Comptoir	Banque
1920	3,239	3,090	2,651	3,276
1925	4,797	4,706	3,777	3,573
1926	5,226	5,369	4,220	4,540

It is clear that the Banque manages somehow to run abreast of the "big three." But in the perspective of the entire discounting business in the country its role is very modest indeed.

The Reichsbank is like the Bank of England and the Banque de France a bank of banks or bankers' bank. It keeps the deposits of these institutions and serves, so to say, to centralize the financial resources of the German Empire. Its responsibilities as the "reserve bank" of the entire country are therefore considerable. It is compelled, as a consequence, to keep a strict eye on its "cover", i.e., the amount of "cash" bullion and securities.

The cover maintained by the Reichsbank is in the last analysis the "reserve" for the whole Empire,—for the Government as well as for the other banks. As a reserve bank the Reichsbank's functions are identical with those of the Banking Department of the Bank of England. It need be recalled that banking of any sort is not permitted to the Issue Department of the British institution.

The method of protecting the reserve is the same in Germany as in England. The "legal" reserve is likely to be depleted under two sets of "economic" circumstances. First, because of industrial expansion or commercial boom of all sorts an extraordinary volume of bills of different kinds may come into existence. In

order to discount these commercial papers the Reichsbank may find itself compelled to issue more notes and tend to have its legally sanctioned cover correspondingly diminished. As soon as this tendency appears the Reichsbank raises the rate of discount, i.e., makes loans at higher rates, thus putting a damper on the enthusiasm of the company-promoters and other expansionists. They are thereby compelled to cry a halt to approaching the Note-Bank for money with commercial papers in hand. This period is very hard for the business men as the money-market becomes tight. But, for the Reichsbank this is the time for husbanding out its resources and preserving the safety of the country's reserve.

In the second place, the legal cover may be endangered by a strong fluctuation in the foreign exchanges. There may be a rise in the rates of the pound-sterling, the dollar, or other foreign currencies compared to the Mark. It may then become profitable to transport Marks in gold bullion or coin to foreign countries instead of bills of exchange, as the so-called "gold point" is reached. Under these conditions the German traders are sure to take the notes to the Reichsbank and demand payment in coin or bullion for the corresponding values. Naturally, therefore, the Reichsbank's supply of gold tends to diminish. To counteract this tendency the Reichsbank raises the rate of discount, thus enabling itself to do with less notes.

This technique works automatically and is as much French as British or German.²¹ It need be observed,

24 See the chapter on *Die Kreditpolitik der Reichsbank* in Prion : *Kreditpolitik* (Berlin, 1926).

however, that the Banque de France has maintained a more uniform rate of discount throughout its history than either the Bank of England or the Reichsbank. Moreover, the rates of discount have generally been low in France compared to those in England and Germany.

The Banque's discount rate was almost uniformly stable at 3 p.c. between 1898 and 1913.²⁵

The exceptions may be indicated below:—

Rate	Period
3.5 p.c.	Dec. 1899, March 1907, Jan. 1908, Sept. 1911, Jan. 1912, Oct. 1912.
4.0 p.c.	Jan. 1900, Nov. 1907, Jan. 1908, Oct. 1912, Jan. 1913.
4.5 p.c.	Dec. 1899.

During the same period the Reichsbank's discount rate²⁶ was not only in constant fluctuation but invariably higher than the Banque's. Compared to the French 3 p.c. as "typical," the "traditional" German rate may be quoted as very often 5 p.c., oftener 4 p.c. At the Reichsbank the 3 p.c. prevailed only for 51 days in 1898, 233 days in 1902 and 196 days in 1905. The following table indicates realistically the actual position:

25 Courcelle-Seneuil, p. 278. In 1930-31 the rate was 3.5%, 3%, 2.5%, 2% and again 2.5%. See *Compte rendu* (Paris 1932), pp. 11-12, 27.

26 *Die Reichsbank*, Tab. 47. On Jan. 1, 1931 the rate was 5%. On August 1, it rose as high as 15%. By the end of the year it was 7% and on May 1, 1932, it was 5%. (*Federal Reserve Bulletin*, May 1932, p. 327).

The rates of the Bank of England since 1848 may be seen in the *Economist* (London) May 14, 1932, p. 17 (Banking Supplement).

Year	Number of days on which prevailed									
	3 p.c.	3½ p.c.	4 p.c.	4½ p.c.	5 p.c.	5½ p.c.	6 p.c.	6½ p.c.	7 p.c.	7½ p.c.
1898	51	...	209	...	48	10	42	...	...	...
1899	40	126	90	...	92	...	12	...
1900	168	166	15	...	11	...
1901	...	95	154	56	55	...	...	...	...	...
1907	186	91	9	21	53
1910	226	19	115	...	...	...	...	...
1911	211	12	137	...	...	...	...	...
1913	19	45	296	...	...	...

During 1915-1921 the Reichsbank's discount rate was 5 p.c. for 360 days of the year. In France also from August 1914 to 1919 the rate was stable at 5 p.c. Since then the rate never went beyond 7½ p.c. in France, as for instance, once in July 1926. It was generally oscillating between 5 and 6.

The German rate of discount, however, has witnessed the following history :

Year	Number of days on which prevailed					
	9 p.c.	10 p.c.	12 p.c.	18 p.c.	30 p.c.	90 p.c.
1923	...	17	95	99	45	106
1924	...	360	...	...	...	...
1925	305	55	...	...	...	...

Although the Reichsbank is not a state-institution, it is privileged like the Bank of England and the Banque de France to administer certain "public", i.e., governmental services. It manages the receipts and disbursements as well as debts and other obligations of the German Empire. All the banking functions of the Empire are discharged through this agency.²⁷ The Act

²⁷ The post-war developments of the Reichsbank and its relations with the extraordinary institution, the Rentenbank, are described in Sarkar's

of 1924 has not introduced any specially noteworthy changes in this regard.

The president of the old Reichsbank was, as has been noted above, an officer of the Imperial government. The governor of the Banque de France is likewise appointed by the French government. But the governor of the Bank of England is not a state official. He is elected by the board of directors, who, again, are elected by the share-holders. The French institution is closer to the government than is the Bank of England. It is indeed almost a state-institution even after the reorganization of 1928. The new Reichsbank is a thoroughly private institution.

As an ordinary banking institution and as a bankers' bank (or reserve bank) the Reichsbank gets its services paid for by its clients in the usual way.

But as the bank for the Imperial government, the new Reichsbank like the old discharges its functions gratis. It may be said to get paid in the following, indirect manner. First, it has the exclusive privilege of circulating the legal tender bank-notes for the Empire. This is a profitable business in itself. In the second place, it is the sole depository of government funds and thus possesses command over enormous liquid capital. Thirdly, for a long time it obtained $\frac{1}{4}$ th of the profits beyond the dividend which was fixed at $3\frac{1}{2}$ p.c.

The advantages accruing to the Imperial government are no less solid. First, the Reichsbank acts as its fiscal agent and renders all the services required for the

government in an honorary manner. The government is thereby relieved of all expenses in the management of its revenues, debts and other financial transactions. In the second place, the government used to obtain $\frac{3}{4}$ ths of the "net" profits, i.e., the amounts available after deducting the dividend.

The Act of 1924 has fixed the minimum dividend at 8 p.c. Then there are certain special rules regarding the division of profits between the government and the Reichsbank. Finally, it is exempt from all corporation, income and business taxes on German soil.

The Reichsbank and the Banque de France as Central Banks

In regard to the larger commercial banks of Germany, the Reichsbank plays the same part as the Banque de France in regard to the corresponding French institutions of credit. In times of crisis it is the refuge of all banks for the re-discount of their papers. But the Reichsbank cannot be described as, strictly speaking, the centre of the German banking system in the same sense as the Banque de France is of the French.

The reasons are to be found in the difference between the banking institutions of the two countries. The German banks are similar to the French *societes de credit* in the ordinary banking functions, e.g., current accounts, discount, transfer, exchange, collection, etc. These are the normal operations of commercial banks. But there are certain functions which may be described as extra-bancal and yet which have very often to be undertaken by banking institutions. These consist in the participation, direct

or indirect, in industry or trade. Promoting industrial projects and financing commercial concerns or "under-writing" them belong to this class of operations.

The French banks are as a rule very cautious or rather timid in this direction. They try to keep as closely as possible to their normal functions. The German banks, on the other hand, venture to participate boldly in industrial and commercial establishments. In France such operations are considered to be proper only to such institutions as are founded especially with this object and are accordingly furnished with adequate capital for the purpose. The risks attendant upon "industrial and colonial" enterprises are regarded as too great for banks nurtured on the deposits of clients of all categories. For, the special feature of such transactions consists in the tying down of capital. And this an ordinary bank can hardly afford.

To the extent that German banks undertake without distinction the financing of industry and commerce they place themselves in difficult and dangerous situations. Their risks can, therefore, be scarcely anticipated and controlled by the Reichsbank. But in France certain banks specialize in industrial and colonial operations and necessarily also in the corresponding risks. It is consequently possible for the Banque de France to localize the possibilities of danger or sources of difficulty. From all these considerations it might be suspected if the Reichsbank can be described as the real centre of the German banking system just as the Banque de France is in the French.

But on the other hand it need be observed that the Reichsbank's rate of discount is by

law compulsory in all the banks of the country. The control over the entire banking business of the Empire is thus of a very effective order. In this respect the Reichsbank is more "central" than the Bank of England. And it is doubtful if the Banque de France's influence as a central institution is greater than that of Reichsbank, so far as this item is concerned.

The Note-Banks vis-a-vis the Government

There are important differences between England, Germany and France in regard to the administration of the Central Bank.

The Banque de France has been governed since the law of 1800-1808 by a "general assembly," consisting of 200 members. They are the largest shareholders of this institution. The assembly's affairs are administered by two smaller bodies, the "council" and the "committee." The council consists of 15 "regents" and the committee of 3 "censors." The regents are the actual directors or administrators. The functions of the censors consist in auditing the accounts.

The regents are elected by the general assembly. Of them 5 are to come from among the shareholders. But they must possess actual business qualifications as manufacturers or merchants. From among the government's provincial treasury officials the assembly is to choose 3 regents. In regard to the remaining seven, the assembly is free in its choice.

The whole administration is presided over by one governor and two deputy-governors. All these three officials are appointed by the government. They have generally been men in high service. The governor

receives his appointment for life. By the law of Nov. 17, 1897 the governor and the deputy-governors cannot become members of the Chamber of Deputies or of the Senate.

The 3 regents and the 3 governors represent the government on the constitution of the Banque. To this extent it may be described as a state bank, if one so desires, especially when one considers the regulations relating to branch-banking.

The branches of the Banque de France are governed by boards of directors. The list of persons to sit on these boards is made up by local shareholders or even by the shareholders of the head office. And the appointment is finally made by the governor. The branches are thus administered and controlled under state supervision. The manager of the branches is, besides, a government official like the governor of the entire Banque.

Constitutionally speaking, the old Reichsbank's connections with the government were more intimate than those of the Banque de France. Both the president as well as the "council" of the Reichsbank were appointed by the government. But there was a "committee" through which the shareholders could exercise their influence on the management of its affairs.

Further, the provision in regard to the distribution of profits by which the state received $\frac{3}{4}$ ths of the entire amount after the payment of dividend rendered the Reichsbank's affairs almost a government business.

The government's share in the "net profits" of the Reichsbank was fixed at certain percentages on various occasions, for instance, by the Act of 1875 as well as by the decrees of Dec. 18, 1889, June 7, 1899 and June 1,

1900 previous to the war. The Act of August 30, 1924, has also reconsidered the situation and decided upon new rates. Each one of these laws has distributed the net profits among the following categories: (1) reserve funds, (2) shareholders' dividend, (a) paid and (b) carried forward to the next year, and (3) government.

From 1876 to 1913 the important role of the state as profit-sharer in the Reichsbank business would be apparent from the actual distributions as follows:—

Gross Earnings	...	1,368,093,611 M.
Total Expenses	...	589,063,611 M.
Net Profit	...	779,029,860 M.
Government's Share of Net profit	...	376,280,083 M.
Shareholders' Share of Net profit:		
(a) Paid	...	364,064,000 M.
(b) Carry forward	...	1,014 M.
Reserve Fund	...	38,684,763 M.

The government thus enjoyed the "lion's share" in the net profits,²⁸ amounting to 48·3 p.c. of the total whereas the "paid" portion of the shareholders' share made up 46·7 p.c.

In this sense, however, the old Reichsbank was not more of a state-institution than the Banque de France.²⁹ For, the financial advantages of the French government in return for the privileges renewed to the Banque de France by the law of Nov. 17, 1897 are not to be ignored.³⁰ First, the state was not to pay interest on the loan of 140

²⁸ *Die Reichsbank 1901-1925*, Tabellen 54, 55.

²⁹ For a full-fledged state-bank see the chapter on the "State-Bank of Soviet Russia" in Sarkar: *Economic Development*.

³⁰ *Lois et statuts*, pp. 161-163, 193, 243.

million francs granted by the Banque in 1857 and 1878. Secondly, the state was to get another loan of 40 millions from the Banque without interest for the entire period of the privilege. Thirdly, the state was to obtain from the Banque a sum equal to $\frac{1}{8}$ th of the discount enjoyed. This was never to be less than 2 millions. Fourthly, should the rate of discount have been higher than 5 p.c. the "excess profit" was to be deducted from the sum available for the shareholders. One-fourth of the remainder was to be added to the capital of the Banque, but $\frac{3}{4}$ ths were to come to the state.

The law of Dec. 1911 made certain modifications in regard to the third clause. In case the rate of discount was higher than 4 p.c. the proportion for the state was to be raised from $\frac{1}{8}$ th to $\frac{1}{6}$ th. By the same law the state was to obtain a loan of 20 millions without interest.

The amount of the Banque's payments (*redevances*) to the state is registered below :—

	Francs		Francs
1897	2,742,000	1906	5,333,000
1898	3,343,000	1907	7,357,000
1899	4,857,000	1908	5,533,000
1900	5,655,000	1909	4,790,000
1901	4,107,000	1910	5,733,000
1902	3,777,000	1911	7,226,000
1903	4,314,000	1912	8,723,000
1904	4,521,000	1913	13,625,000
1905	4,225,000		
		Total	95,861,000

In accordance with the convention of June 23, 1928, the new Banque has advanced to the government the sum of 3,000 millions without interest to be paid back in 1945. The total amounts of *prêts sans intérêt à l'Etat* (loans

without interest to the state) is, then, 3,200 millions (of "new" francs).³¹

The government of the Bank of England is entirely private. The state possesses hardly any control over it. The shareholders constitute the supreme authority. They elect from among themselves a board of directors. The directorate consists of 24 members, but none of them are to have connections with any banking institution in an official or proprietary capacity. There is a governor who is assisted by a deputy governor. Each is appointed for two years by election. But both of them must belong to the directorate.

The lavish grants and interest-free loans enjoyed by the French government from the Banque are unknown in the Reichsbank Act of 1924. The German government cannot obtain a loan of more than 100 million Marks and is bound to repay the Reichsbank in the course of the official year. Interest has to be paid. The Reichsbank is, however, authorized to make loans not exceeding 200 million Marks to the Government Post and Railway Departments. Besides, after 12 p.c. of net profits has been placed in the reserve and 8 p.c. paid to shareholders the government has a right to "profit-sharing" with the Reichsbank.

That the "profit-sharing" of the German Republic in the new Reichsbank's business does not reach modest proportions would be evident from the first year's record in stabilized currency. The following figures for 1924 tell their own story :

31 *Compte rendu* (Paris 1932), p. 24.

Gross Earnings	...	307,073,350	Reichsmarks
Total Expenses	...	184,559,159	„
Net Profits	...	122,514,191	„
Reserve Fund	...	24,502,838	„
Shareholders' Dividend			
(a) paid-up	...	9,000,000	„
(b) carry forward		33,403,600	„
Government's Share		55,608,514	„

Although the new Reichsbank has been almost completely emancipated from the state, the lion's share of the net-profits still belongs to the latter, amounting to 45·4 p.c.

But we are transported to another world in the Bank of England. Emancipation from government control or even from contact with the state is assured by the very constitution of the Bank as indicated above. Constitutionally, it is more independent of the state than even the new Reichsbank in which the election of the president is to a certain extent subject to the voice of the *Reichspräsident*. Besides, not to speak of the interest-free *avances à l'Etat* such as the Banque de France grants, the enormous portions of profits such as both the French and the German institutions have all along been transferring to the state are unknown in the history of the Bank of England. The British government, however, obtains "the profits arising in respect of each year in the issue department" which as a rule does not go beyond a modest figure. On the other hand, the government pays interest for its debts to the Bank at stipulated rates. For services rendered by the Bank it is, moreover, paid by the government as almost any other banking institution would be paid. The relations of nearly complete independence should, therefore, appear to prevail on both sides.

The Bank Capitalism of Young Bengal

(A Study in Comparative Bank Management)

Of all the different lines of modern business in which the Bengali people has been taking part, banking is perhaps the youngest. And yet our record in banking is quite glorious and encouraging. For the last 27 years, i.e. ever since the beginning of the Swadeshi movement, young Bengal has been achieving success after success in business and banking along the entire front. It is desirable that our business men and investors should be conscious of the remarkable progress that in spite of our shortcomings we have been able to make in recent times.

One way in which we can measure the amount of progress already achieved in banking consists in comparing our situation to-day with that about 1905. Let us take the figures for the whole of India. In 1905, there were not more than 9 joint-stock banks throughout India under exclusively Indian control.¹ The combined capital and reserve of these institutions amounted to Rs. 16,239,000 and the deposits to Rs. 119,892,000. We are here mentioning only the somewhat "larger" banks, i.e., those possessing a paid-up capital of at least

¹ *Statistical Tables relating to Banks in India* (1929), Calcutta, 1931, p. 2.

Rs. 500,000. What is the number of such "larger" joint-stock banks to-day (in 1929)? It has reached the figure 33, the capital and reserve amount to Rs. 115,351,000 and the deposits to Rs. 627,203,000. Evidently this simple arithmetic will convince everybody that India has been able to accomplish something mentionable during the period of the Swadeshi movement. The figures tell us two things, namely, (1) that in bank capitalism, so far as the larger credit institutions are concerned, the Indian people (1929)=7.1 Indian people (1905). In 1929 there are 7.1 times as much capital and reserve in larger Indian banks as in 1905. (2) That in deposit banking, so far, again, as the larger institutions are concerned, the Indian people (1929)=5.2 Indian people (1905). There are 5.2 times as much deposit in larger Indian banks as in 1905.

These two equations, both indicating, as they do, a rise in the curve from 1905 to 1929 acquire a special significance when we consider that the population of India has not increased 7.1 times nor even 5.2 times in the meantime. We understand, then, that per head of population there is noticeable a growth both in bank-capital as well as in bank-deposit. The development of banking habit may then be taken to be an established socio-economic fact of the last quarter of a century.

Industrialization of India in Cotton (1905-31)

We need not discuss the smaller and other Indian banks for the present, but it is possible to assert that India's progress in joint-stock banking has indeed been parallel to the success in our Swadeshi movement in regard to the cotton textile industry. It is not necessary to

connect the banking progress with that in cotton manufacture. We may take these two lines of economic enterprise equally as embodiments of the people's advance in industrialization and capitalism, although perhaps to a certain extent independent of each other. In 1905 there were 197 cotton mills throughout India. In 1931 the figure was 339. The increment in spindleage and looms can be seen below :

Year	Spindles	Looms
1905	5,163,486	50,139
1931	9,311,953	182,429

Corresponding to this increase in machinery there has been simultaneous increase in the employment rolls also. From 195,277 in 1905, the hands rose to 395,475 in 1931.²

This industrialization, so far as the cotton line is concerned, has been able to exhibit its influence on the statistics of foreign trade as well. We are to-day less dependent on foreign textile stuff than in 1905.

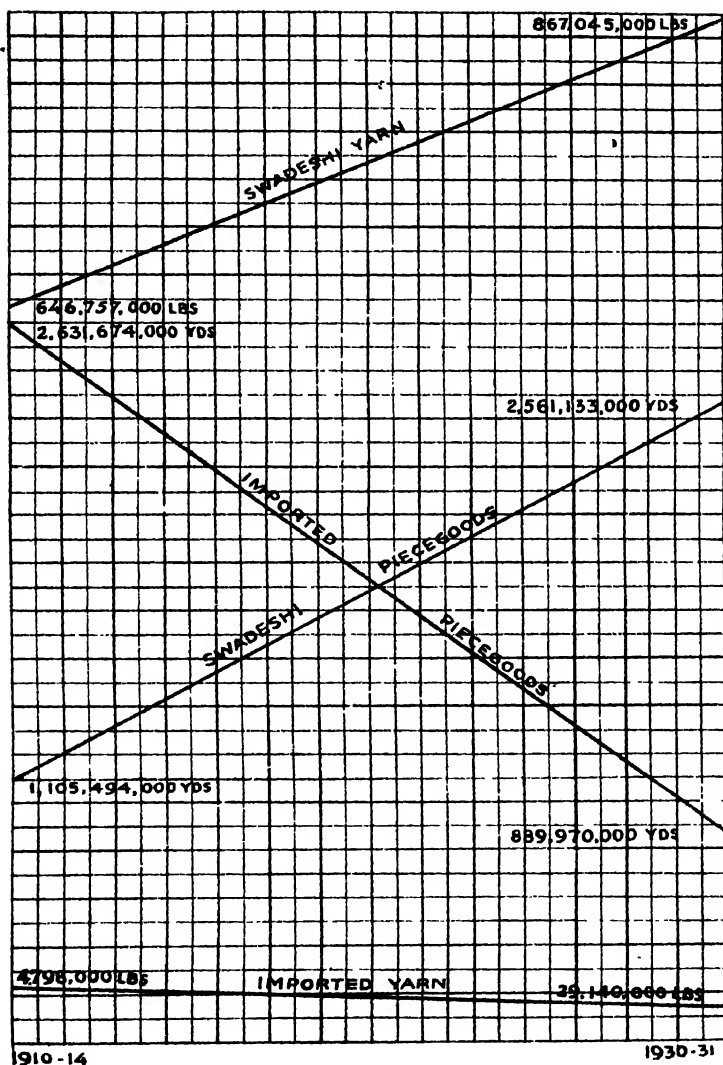
The production of cotton twist and yarn in Indian mills has increased from 646,757,000 lbs. in pre-war quinquennium to 867,045,000 lbs. in 1930-31.³ This is an increment to the extent of 136 per cent. The comparative position at two dates so far as the relations between imports and home manufacture are concerned is exhibited below :

2 Chart published by the Millowners' Association, Bombay, 1931.

3 *Review of the Trade of India in 1930-31*, pp. 207.

CHART IV

Progress of India's Swadeshi manufacture and Diminution of Imports in cotton yarn and piece-goods
(1910-31)



N. B. The lb. lines (yarn) and yd. lines (piece-goods) are plotted on the same chart but naturally on different scales.

(To face p. 85)

Pre-War Average

(1) Imports	41,798,000 lbs.
(2) Swadeshi (Home-made)	646,757,000 lbs.
Relation of (2) to (1): 1547 p.c.	

1930-31

(1) Imports	29,140,000 lbs.
(2) Swadeshi (Home-made)	867,045,000 lbs.
Relation of (2) to (1): 2975 p.c.	

It is clear that even in pre-war years the Indian output in cotton twist and yarn was 1547 per cent of the imports (i.e. more than 15 times).

In 1930-31 the percentage was 2975, i.e. the output was more than 29 times the imports.

The percentage has virtually been doubled.

From the pre-war average of 41,798,000 lbs. the imports of cotton twist and yarn have come down in 1930-31 to 29,140,000 lbs. i.e. to 69 per cent.⁴ This diminution is to be noticed on all fronts, i.e. not only in the lower and the middling counts but even in the counts above 40 as well. Some of these details are given below (in thousand lbs.):

	PRE-WAR AVERAGE	1930-31
Nos. 1-20	1,375	454
„ 21-30	4,374	478
„ 31-40	23,213	14,755
Above 40	7,602	4,273

⁴ *Review of the Trade of India in 1930-31*, pp. 205-206.

The retreat of Nos. 1-30 is almost phenomenal, namely, from 5,749,000 lbs. to 932,000 lbs.

That is, in 1930-31 these counts were imported to the extent of 16.2 per cent only of the pre-war average. The foreign imports are virtually nowhere in regard to the lower counts.

The yardage of cotton piecegoods produced in the Indian mills has been likewise steadily on the increase. From 1,105,494,000 yds. in pre-war years the production has grown up to 2,561,133,000 yds. in 1930-31. This implies an increment of 231.6 per cent in twenty years.⁵ The comparative estimate at two dates so far as the relations between imports and home manufactures are concerned can be envisaged in the following table :

PRE-WAR AVERAGE

	(Thousand Yards)
(1) Imports	2,631,674
(2) Indian made	1,105,494
Relation of (2) to (1): 42 p.c.	

1930-31

	(Thousand Yards)
(1) Imports	889,970
(2) Indian made	2,561,133
Relation of (2) to (1): 287 p.c.	

We observe that in pre-war years the Indian output in cotton piecegoods was only 42 per cent (i.e. less than half) of the imports. But in 1930-31 it was 287 per cent (i.e. nearly three times). The percentage has thus increas-

⁵ *Review of the Trade of India in 1930-31*, p. 205.

ed nearly seven times. The story of imports of cotton piecegoods tells naturally the story of a striking diminution. The pre-war average was measured at 2,631,674,000 yards. In 1930-31 the imports were totalled at 889,970,000 yds. i.e. 33·8 per cent of the situation some two decades ago.⁶ In this regard our textile independence to-day is to be measured by 66·2 per cent diminution in the import.

On the whole, the progressive removal of the foreign textile stuff from the Indian market can be seen in the following analysis :

First, in regard to cotton piecegoods. In pre-war quinquennium, out of a total of some 3,737,000,000 yds. of machine made stuff available on the market,—excluding thereby the output of the handlooms,—70 per cent came from abroad. But in 1930-31 the imports could account for only 25·7 per cent.

Secondly, in regard to cotton twist and yarn, out of a total supply of some 869,185,000 lbs.,—excluding thereby the output of the handspinning system, 6 per cent represented the imports. This has been reduced to 3·2 per cent in 1930-31. Altogether, the Swadeshi spirit has been very successful in this line of industry.

The Foreign Element in Bengal Banks

In the milieu of this general progress in industrialization and banking habit let us proceed to examine the developments of the Bengali people in bank capitalism and bank-management. At the outset we have to observe (1) that a good deal of Bengali banking is carried on along

traditional, medieval lines, i.e. in an "unorganized," proprietary manner, and (2) that organized or joint-stock "Bengali banking" as a category is to be sharply distinguished from "joint-stock banking in Bengal." It goes without saying that joint-stock banking in Bengal would comprise three different items :

1. Bengali banking, properly so called,
2. Non-Bengali Indian banking,
3. Foreign (non-Indian) banking.

For the purposes of statistical analysis it is necessary to bear this distinction in mind. It so happens that at the present moment none of the larger joint-stock banks doing business in India can be described as Bengali institutions, although no doubt they are sought by Bengali deposits. By "larger banks" are to be understood those joint-stock institutions which possess a minimum capital and reserve of Rs. 500,000. The position of "larger" banks operating in India at the end of 1929 is indicated in the following table :⁷

Denomination	Number	Paid-up Capital	Reserve	Deposits
1. Imperial Bank	1	Rs. 56,250,000	Rs. 54,776,000	Rs. 792,428,000
2. Foreign (Exchange) Banks	18	£106,444,000	£121,286,000	Rs. 666,591,000
3. Indian Joint-Stock Banks (large)	33	Rs. 78,697,000	Rs. 36,654,000	Rs. 627,203,000
Total	52	134,947,000	91,430,000	2,086,222,000
excluding the capital and reserve in £ of the foreign banks.				

Attention has to be called to the fact that the foreign banks are incorporated abroad with capital in foreign

currencies. The people of Bengal or of entire India may be taken as having no part in the share-capital of these institutions, except in so far as their shares as international values may happen to be purchased in Bengal and in other parts of India also. But in the deposits commanded in India by these foreign banks the part of the Indian people may be taken to be substantial.

Taking the population of India roundly at 320,000,000 we should have to credit the Indian per head with Re. 0-11-3 pies as share-capital and reserve so far as larger joint-stock banking is concerned. And the average deposit per head turns out to be Rs. 6-8-3 pies. To these "Indian" averages we have to add the "exclusively Bengali" averages in order to ascertain the total Bengali per capita values in bank-capital and bank-deposit.

Bengal and the Balkan Complex in Banking

Bengal, or for that matter, India is not the only economic region where foreign finance plays the preponderant part in commercial and industrial enterprises. Many of the politically independent countries of Eur-America find themselves in the same condition, namely, that of having their economic life influenced and controlled by branches of foreign banks or by foreign banks dominating the indigeneous or national banks as shareholders. One should believe that the absence of banking habit as well as the absence of confidence of the people in the banks managed by their own countrymen characterize quite a large proportion of the peoples in Europe and America. Thus considered, the people of

Bengal will be found to be nearly as good or as bad as, say, the peoples of the "Balkan complex".

In 1930 there were 39 banks in Greece (6 million inhabitants) of which 10 were foreign. Of the indigenous banks the most important are the four government institutions described below:

	Capital & Reserve	Deposits
1. Banque Nationale de Grèce	1,205,000,000 Dr.	6,865,000,000
2. Credit Foncier	113,000,000 ..	373,000,000
3. Banque Agricole de Grèce	1,097,000,000 ..	221,000,000
4. Banque d' Industrie	102,000,000 ..	29,000,000
Total	1,517,000,000 ..	7,488,000,000

(one Rupee=27 drachmae approximately).

As the available statistics for some twenty-nine institutions furnish us with a total capital and reserve of 3,892,000,000 drachmae and a total deposit of 14,750,000,000 dr. (Rs. 544,000,000) at December 1930, it is clear that in capital resources nearly 39 per cent and in deposits 50·7 per cent is commanded by the government institutions alone. It is to be understood that the private banking concerns,—among which again 10 are branches of foreign institutions,—have to be satisfied with less than half of the deposit business. Joint-stock banking, in so far as it is in the hands of the Greek people, is therefore to be treated as a very modest affair.

Let us now take the balance sheet of one of the biggest banks of Greece, the biggest in fact as a private institution, the Banque Commerciale de Grece⁸ (Capital

⁸ *Europäische Banken* 1931 (Prague), pp. 101-103. See the *Near East Year-Book* 1931-32 (London), pp. 343-349. One Re.=27 drachmae approximately.

50,000,000 drachmae, deposits 927,000,000). It is not a foreign bank. But the largest number of shares is possessed by foreigners, namely, the Commercial Bank of the Near East (London). We find then that in Greece banking business is predominantly an affair of the state or of foreigners, and that even in national private banks the controlling factor is furnished by non-Greeks. Banking habit and bank-administration do not as yet appear to be ingrained in the character of the Greek people.

In the banking system of Yugoslavia (12 million inhabitants) the characteristic feature is the multiplicity of small institutions.⁹ There are two associations of banks, one with headquarters at Belgrade and the other at Agram.

On the strength of statistics published by the association at Belgrade it is possible to assert that in 1930 there were 317 institutions with a capital of 1,880,000,000 dinars and reserve of 500,000,000 dinars. The deposits commanded by them altogether amounted to 3,932,000,000 dinars. In regard to the institutions of the Agram centre we understand that the First Croat Savings Bank succeeded in emancipating itself from foreign capital in 1930. But foreign control is the striking feature of the other big banks, for instance, the four following :

Banks	Capital	Reserve	Deposits
1. Yugoslavian Bank			
Agram	100,000,000 dinars	35,000,000	897,055,000
2. Yugoslavian Union			
Bank Agram	185,000,000 ..	56,255,000	924,888,000

⁹ *Europäische Banken* 1931 (Prague), p. 181. One Re.=20 dinars approximately.

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Banks	Capital	Reserve	Deposits
3. General Yugoslavian Bank-Union, Agram and Belgrade	100,000,000	dinars 27,512,000	328,235,000
4. Croat General Credit-Bank, Agram	37,500,000	„ 9,674,000	236,525,000

Of these "big four," the Jugo Bank is influenced by Czechoslovakian finance. The biggest of all, the Union Bank, is controlled by the Pester Hungarian Commercial Bank of Budapest, the Anglo-International Bank of London, the Austrian Credit-anstalt of Vienna and other institutions. Among the foreign share-holders of the Bank-Union we find the names of the Wiener Bankverein of Vienna, the Societe Generale de Belgique of Brussels, the Basler Handels-Bank of Basel, etc. And the Credit-Bank is controlled by the Union Europeenne Financiere of Paris and the Allgemeine Kreditbank of Budapest. The French influence has been becoming more powerful than the Hungarian.

Foreign finance is predominant in Rumania too (pop. 17 millions). The Banca Commerciale of Italy, the Dresdner Bank of Germany, and the Banca Anglo-Romana of England have their own offices in this country. Besides, the very biggest Rumanian banks are, like the Polish, under non-Rumanian influence and control.

Let us take the two following institutions for the year 1930:¹⁰

Banks	Capital	Reserve	Deposits
1. Banca de Credit Roman, Bucharest	400,000,000	lei 334,000,000	3,469,000,000
2. Banca Commerciale Romana, Bucharest	300,000,000	„ 102,000,000	3,931,000,000

¹⁰ *Europäische Banken* 1931 (Pragüe), pp. 151-153. See the *Near East Year-Book* 1931-32, pp. 525-26. One Re.=60 leis approximately.

Of these the Banca de Credit is controlled by the Oesterreichische Creditanstalt of Vienna, Mendelssohn & Co. of Berlin, Kleinworth Sons & Co. of London, Banque des Pays de l'Europe Centrale of Paris and other foreign institutions. Among the foreign interests dominating the Banca Commerciale we find the names of Banque de l' Union Parisienne of Paris, Banque Belge pour l' Etranger of Brussels, etc.

Let us turn our eyes to another country of the Balkan complex, namely, Bulgaria (pop. $7\frac{1}{2}$ millions). In 1928 the banking system¹¹ of Bulgaria comprised the following items :

- I. Government institutions :
 1. The National Bank
 2. The Agricultural Bank
 3. The Central Co-operative Bank
- II. People's Banks (co-operative) : 164
- III. Small Joint-Stock Banks : 119
- IV. Large Joint-Stock Banks : 8

There were thus altogether some 291 institutions excluding the three official ones. The relative positions of the last three categories can be seen in the following table :

Banks	Capital	Deposits
1 People's Banks	542,000,000 levas	1,195,000,000 levas
2. Small joint-stock banks	581,000,000 „	2,102,000,000 „
3. Large joint-stock banks	426,000,000 „	4,461,000,000 „
Total	1,549,000,000 levas	7,752,000,000 *

11 *Journal of the Bulgarian Society for Political Economy* No. 8, 1930 :

It is evident that the deposits of the Bulgarian people prefer the large banks to the small ones. The former command 212 per cent the deposits of the latter. We shall now examine in detail some of these big institutions. It is possible to get the figures for three of them as follows. (for 1928):

	Capital	Reserve	Deposit
1. Banque Commerciale Italienne et Bulgare Sofia	40,000,000	levas 8,500,000	1,032,571,000
2. Banque Franco-Belge et Balcanique, Sofia	150,000,000	.. 10,479,000	1,000,000,000
3. Banque Bulgare de Commerce, Sofia	60,000,000	.. 20,000,000	648,063,000
Total	250,000,000	.. 38,977,000	2,680,634,000

These three account for 58.7 per cent of the capital and 60 per cent of the deposits possessed by the eight large joint-stock banks. The lion's share in the banking business of Bulgaria thus belongs to these three. Now none of them are 100 per cent national, each being foreign-controlled.¹² The Banque Commerciale Italienne et Bulgare is, as the very name shows, Italian in share-capital, dominated as it is by the Banca Commerciale Italiana of Milan. Similarly, the second institution is predominantly French and Belgian. The Banque de l'Union Parisienne of Paris and the Banque Belge pour l'Etranger of Brussels are the chief share-holders, among

Co-operative Information (Geneva, International Labour Office), No. 1, 1931. Re. 1=50 levas approximately.

¹² *Europäische Banken* 1931, pp. 18-21. For foreign capital in Bulgaria see the *Near East Year-Book* 1931-32 (London); pp. 192, 193, 167.

whom are also to be found the Wiener Bank-Verein and the Oesterreichische Creditanstalt of Austria and the Ungarische Allegmeine Creditbank of Hungary. The Banque Bulgare de Commerce (Bulgarian Bank of Commerce) does not bear in its name any foreign association. But all the same, the chief share-holder is the Banque de Paris et des Pays-Bas of France.

It is to be noted that these "big three" of Bulgaria together possess a share-capital of some Rs. 5,000,000, the biggest being operated at Rs. 3,000,000 and the smallest at some Rs. 800,000. That is, even for such small doses of capital Bulgaria has to depend on co-operation with foreign finance. And the people's confidence is enjoyed mainly by those institutions which have foreign participation and control.

Greece, Jugoslavia, Rumania and Bulgaria,—these four regions of the Balkan complex are inhabited by some forty million men and women. It appears, then, that, in the main, the economico-financial structure of the Balkans is substantially similar to that of Bengal (nearly forty-seven millions).

The Banks of Poland

In regard to the relations between foreign and indigenous credit institutions a central European country like Poland does not appear to be in a condition different from that of Bengal, or for that matter, of India, in so far as bank-capitalism and bank administration are concerned. The total deposits for the year 1929 in all the banks functioning in Poland,¹³—some 281 in number,—came up.

13 *Europäische Banken* 1931, p. 140.

to 2,710,000,000 Zloties (Rs. 32 = 100 Zl). They were distributed in the following manner :

	Zloties
I. Government Banks :	
1. Note-Bank	177,000,000
2. Agricultural Bank	255,000,000
3. Land Bank	71,000,000
	<hr/>
	503,000,000
II. Savings Banks :	
1. Postal	384,000,000
2. Other	446,000,000
	<hr/>
	830,000,000
III. Co-operative Credit Societies	374,000,000
IV. Indigenous Banks	892,000,000
V. Branches of Foreign Banks	77,000,000
	<hr/>
Total	2,710,000,000
(= Rs. 867,000,000).	

It is clear that only something like 33 per cent of the entire deposit was to be found in indigenous banks (IV). We have to understand that "private" joint-stock banking is not an important factor in the financial structure of the Polish people. It is the government institutions, savings banks and co-operative credit societies that constitute the foundations of banking organization in Poland. As for the joint-stock banks under private auspices we have to notice two categories : (1) indigenous and (2) foreign. The foreign element is substantial although not predominant.

But one would be entirely mistaken if one were to believe that in Poland the "indigenous" banks are really national in capital and administration. The facts are quite otherwise, for most of these institutions, although not branches of foreign banks like those in Group V, are influenced, nay, dominated by foreign capitalists in a direct manner. It is not possible to gauge precisely the extent of foreign influence and control in these indigenous banks of Poland. But certain figures may not fail to indicate the tendencies. Of the 892,000,000 Zl described as deposit in all the indigenous credit institutions (IV), 40·7 per cent is commanded by four banks alone, as follows :

	Zloties
1. Bank Dyskontowy Warszawski (Discount-Bank of Warsaw)	120,887,000
2. Bank Handlowy (Bank of Commerce), Warsaw :	110,00,000
3. Powszechny Bank Związkowy (General Bank-Union), Warsaw :	109,000,000
4. Powszechny Bank Kredytowy (General Credit Bank), Warsaw :	23,939,000
Total Deposit	363,826,000

And all these four institutions, although national, were under the strong influence of foreign finance.¹⁴ The Diskontowy was dominated by the Oesterreichische Creditanstalt (the "Rothschild interests") of Vienna. The Handlowy counted among its share-holders such houses as Harriman & Co. of New York, Banca Com-

¹⁴ *Europäische Banken*, 1931, pp. 141-147.

merciale Italiana of Milan, Banque de Bruxelles of Brussels, Nieder-oesterreichische Escompte-Gesellschaft of Vienna and the Hambros Bank of London. Among the shareholders of the Powzeczny Zwiaskowy, likewise, do we find the Wiener Bankverein of Vienna, Banque Belge pour l'Etranger of Brussels, Basler Handelsbank of Basel (Swiss), and the Boehmische Unionbank of Prague. And the Banque des Pays de l' Europe Centrale of Paris is a shareholder of the Kredytowy.

It is noteworthy also that none of the 100 per cent indigenous banks of Poland happen to be big institutions. One of the leading "national" banks of Poland, the Bank Zachodny (West Bank) of Warsaw, for instance, is a rather modest enterprise, exhibiting such figures as the following :

		Capital	Reserve	Deposit
1928	Zl	10,080,000	2,706,000	25,666,000
1929	Zl	10,080,000	2,873,000	32,444,000
1930	Zl	10,080,000	2,927,000	43,050,000

In 1930 the Bank Zachodny was operated at a capital of some Rs. 3,200,000 and commanded deposit to the value of Rs. 13,760,000.¹⁵

Even if we exclude the purely foreign banks (Group V) from our consideration we notice that in Poland the deposits of the Polish people are commanded by such banks as are under foreign control. It is not the Pole but the foreigner that is the master of the banking world in Poland. And naturally, in the "Down-town," the bank quarter, the "city," so to say, of Warsaw one encounters

amongst the most influential personalities not the Poles but the Americans, Austrians, Belgians, Britons, French, Italians and others. The Bengali people (47 millions) will thus find the people of Poland (27 millions) as moving on more or less the same level of banking habits and bank management.

The Co-operative and Savings Banks of Bengal

Let us now turn our eyes to the co-operative credit societies of Bengal as some of the purely Bengali banking institutions. In the interest of uniformity in regard to studies in comparative capitalism let us examine the situation of a few years ago.

In 1928-29 there were functioning in Bengal 17,453 co-operative "banks" of all denominations distributed as follows :

Denominations	Number	Working Capital
1. Agricultural Credit	16,930	Rs. 42,119,119
2. Non-agricultural Credit	410	„ 22,553,222
3. Central Banks	112	„ 39,276,446
4. Provincial Bank	1	„ 17,190,645
Total	17,453	Rs. 121,139,432

The category "working capital" implies 1. paid-up capital, 2. deposits from members, 3. deposits from non-members, 4. loans from government, and 5. reserve funds. The first and fifth items, namely, paid-up capital

16 *Report of the Bengal Provincial Banking Enquiry Committee* henceforth abbreviated as RBBC, 1929-30, vol I, pp 132-134, 142, 146, 149 *Statistical Tables relating to Banks in India 1929* (Calcutta 1931), pp. 7, 20, 25-27

and reserves of these four types of co-operative banks may be indicated below :

Type	Paid-up Capital	Reserves
1. Agricultural	Rs. 4,020,537	Rs. 6,551,339
2. Non-agricultural	„ 5,247,724	„ 1,319,723
3. Central	„ 4,583,770	„ 2,274,096
4. Provincial	„ 1,369,475	„ 363,098
Total	Rs. 15,221,506	Rs. 10,508,256

The total deposits in these types of co-operative banks are indicated below for 1928-29 :

1. Agricultural	Rs. 3,251,803
2. Non-agricultural	„ 15,009,492
3. Central	„ 9,789,775
4. Provincial	„ 15,458,072
Total	Rs. 43,509,142

Taking the population of Bengal roundly at 47,000,000, the paid-up capital and reserve per head of the Bengali people as co-operative bankers comes up to Re. 0-8-9 pies and the bank deposit to Re. 0-14-9 pies.

In bank wealth the Bengali may then be sized up as follows :

	Bank capital per head Rs A P	Bank deposit per head Rs A P.
1. The Bengali as "average India"	0 11 3	6 8 3
2. The Bengali as "Co-operator"	0 8 9	0 14 9
Total	1 4 0	7 7 0

Every Bengali is then a capitalist or shareholder in bank concerns to the tune of Re. 1-4-0 pies. And per head the Bengali holds bank deposits valued at Rs. 7-7-0.

On the deposit account we have two more items to consider, first, the deposits in the post office savings banks, and secondly, the cash certificates sold by the post offices. For 1927-28 we have the following figures for all India :¹⁷

1	Savings banks deposits	Rs 325,000,000	(Rs 371,313,369)
2	Cash Certificates	Rs 60,855,000	
	Total	Rs 385,855,000	

This means that on the average every Indian possesses a postal deposit and certificate of Re. 1-3-3 pies. The Bengali's deposit capital then rises to Rs. 8-10-3 pies.

The Co-operative Credit Societies Act was passed in 1904. That is, about the time Young Bengal initiated the Swadeshi movement, the co-operative banks were being only talked of. To-day there are 17,453 such institutions, large, medium and small, provincial and rural. It is necessary to pause a minute here in order to understand the significance of banking enterprise on co-operative lines. All these banks are run almost exclusively with the resources of the peasants in the villages, most of whom belong to the class of our illiterate fellow-countrymen. But all the same the resources of this class are functioning through the medium of these banks and they are operating a working capital of Rs. 121,139,432.

One may say that the co-operative banks are really controlled by the Government, and that, therefore, in regard to the progress that has been consummated in this

¹⁷ RBBC, 1929 1930, vol I, pp 55-56 *Statistical Abstract for British India* 1920 30, p 684

field during these years it is not reasonable for Young Bengal to take the credit. But although our patriots and nationalist workers have not, as a rule, taken an active part and direct interest in the propagation of co-operative credit among the cultivators of the country, it will not be unreasonable to admit that collective business and united efforts, as well as the spirit of mutual understanding and help, have to a certain extent grown into a national asset and an integral part of the Bengali character, especially among the peasant classes. And this spirit of agricultural and commercial solidarity is a substantial item which the business men, bankers and industrial heads of the country must recognise as a valuable aid to the economic development of our country during the next few years.

Joint-Stock Banks under Bengali Management

We shall now speak of the amount of progress realised in banking by us, Bengalis, such as has been attained without any aid or control from the Government. And for this we shall have to look to the joint-stock banking institutions in the districts of Bengal. These are the institutions in which we have indeed had to suffer to a certain extent from the competition of the semi-government Imperial Bank of India. One should, therefore, consider every success that we have been able to realise in joint-stock banking as a result exclusively of the growing business efficiency, integrity and banking habits of the Bengali people.

Since the present author's return to India towards the end of 1925 after the first period of travels and investigations abroad which began in 1914, he has been trying to collect a complete list of all the joint-stock Bengali

banks in Bengal, as well as to prepare a somewhat complete statistical account of their resources and different kinds of transactions in which they are interested. For one reason or other it has not been possible as yet to collect adequate information on the subject. But a more or less rough calculation yielded the result that there are about 500 credit institutions, known generally as "loan offices," run on the joint-stock principle in our villages, sub-divisions and district headquarters. This figure should appear to be imposing, only if we remember that about 1905 the number of such banks could be counted at fingers' ends.

One does not have to depend on rough calculations or guess-work any more. Very precise figures are now available on account of the labours of the Bengal Provincial Banking Enquiry Committee which sat in 1929 and reported in 1931. To-day on his return to India after a second period of travels in Europe it is possible for the author to state that the total number of these loan offices is round about 800. For the beginnings of Bengali banking on joint-stock lines we have to watch the activities of our pioneers during the decade 1865-75.

The chronology is as follows :

- 1865-71. Faridpur Loan Office, Faridpur.
- 1871. Tippera Loan Office, Comilla.
- 1873. Mymensingh Loan Office, Jamalpur
(Mymensingh).
- 1873. Barisal Loan Office, Barisal.

1874. Bogra Loan Office, Bogra.

1875. Nasirabad Loan Office, Mymensingh.

During three decades from 1875 on i.e. down to the great outburst of enthusiasm for industrialization and capitalism as embodied in the epoch-making Swadeshi Movement of 1905 there were established in the different economic regions of Bengal several new loan offices of which some two dozen appear to be functioning still.¹⁹ The more prominent among them are enumerated below in the chronological order of establishment :

1876. Jessore Loan Co., Jessore.

1887. Jalpaiguri Banking and Trading Corporation,
Jalpaiguri.

1887. Khulna Loan Co., Khulna.

1894. Rangpur Loan Office, Rangpur.

1896. Bhawanipur Banking Corporation, Calcutta.

1903. North Bengal Bank, Rangpur.

It is the "ideas of 1905" that are responsible in this field of our economic life as in many others for the phenomenal advance which characterizes the recent history of India. The post-1905 expansion in Bengali banking can be envisaged below in the number of institutions at work at different dates :

1914-15: 103 loan offices at work

1924-25: 599 „ „ „ „

1928-29: 799 (782) „ „ „

In point of paid-up capital some of the more substantial loan offices at 1929 may be listed below :

	Name	District	Capital	Established
1	Jagodamba Loan Co	Birbhum	Rs 472,000	1918
2	Indian Industrial Bank	Calcutta	372,237	1919
3	Raikut Industrial Bank	Jalpaiguri	304,184	1902
4	Moha Luxmi Bank	Chittagong	242,400	1910
5	Co-operative Hindustan Bank	Calcutta	168,444	1909
6	Bengal Central Bank	Calcutta	168,305	1918
7	Luxmi Industrial Bank	Calcutta	166,127	1922
8	Bhowanipur Banking Corporation	Calcutta	125,000	1896
9	Naogaon Atrai Bank	Rajshahi	104,059	1925
10	Chittagong Bank	Chittagong	101,550	1924
11	Jessore Loan Company	Jessore	100,000	1876
12	Tipperra Loan Office	Tipperra	100,000	1871

From the standpoint of deposits commanded, the more important loan offices are to be placed in the following order :

	Name	District	Deposits	Established
1	Jalpaiguri Banking and Trading Corporation	Jalpaiguri	Rs 5,450,679	1887
2	Jessore Loan Co	Jessore	4,287,313	1876
3	Bhawanipur Banking Corporation	Calcutta	2,951,082	1896
4	Faridpur Loan Office	Faridpur	2,881,029	1871
5	Rangpur Loan Office	Rangpur	2,450,507	1894
6	Bogra Loan Office	Bogra	2,139,417	1874
7	Bengal Central Bank	Calcutta	1,423,357	1918
8	Co-operative Hindustan Bank	Calcutta	1,498,103	1909
9	Khulna Loan Company	Khulna	1,467,447	1887
10	Comilla Union Bank	Tipperra	1,337,542	1922
11	North Bengal Bank	Rangpur	1,191,861	1903
12	Faridpur Bank	Faridpur	1,014,151	1911

The order of importance, so far as loans advanced by these institutions are concerned, may be seen in the following table :

Name	Loans Rs.
1. Jessore Loan Co. ...	4,288,683
2. Jalpaiguri Banking and Trading Corporation ...	4,196,326
3. Co-operative Hindustan Bank ...	2,143,064
4. Khulna Loan Co. ...	1,841,994
5. Faridpur Loan Office ...	1,652,395
6. Bogra Loan Office ...	1,637,425
7. Rangpur Loan Office ...	1,488,015
8. Bhawanipur Banking Corp.	1,289,129
9. Bengal Central Bank ...	1,266,725
10. Comilla Union Bank ...	1,231,808
11. North Bengal Bank ...	1,001,738

The actual returns for 381 loan offices are also available. For the year 1928-29 the picture is as follows : ²¹

Total paid-up capital	Rs. 8,071,570
„ Reserve	Rs. 5,114,573
„ Deposit	Rs. 66,061,632

It is reported, however, that some 400 institutions more were functioning in 1929 but that exact statistics were not available. But on the strength of official conjecture the position of these 400 may be indicated in the following two categories

(a) For 150 unreported loan offices

Total paid-up capital	Rs. 1,582,050
„ Reserve	Rs. 222,000
„ Deposit	Rs. 3,853,650

(b) For 250 unreported loan offices

Total paid-up capital	Rs. 1,566,030
„ Reserve	Rs. 80,000
„ Deposit	Rs. 1,803,500

The total business of all the 781 loan offices operating in Bengal in 1929 may then be seen in the following figures :

Paid-up capital	Rs. 11,219,620
Reserve	Rs. 5,416,573
Deposit	Rs. 71,718,782

We are excluding from our consideration the “active” or assets side of the banking business done by the Bengalis through these institutions. Per head, then, in 1929 the Bengalis possessed Re. 0-5-7 pies as capital and Re. 1-8-4 as deposit being transacted through the “cottage banks.”

If we now add the figures obtained previously in connection with the large and foreign banks, co-operative credit societies and savings banks, the bank finance of the Bengali people per capita will have to be envisaged as follows :—

Capital	Re. 1-9-7 pies
Deposit	Rs. 10-2-7 pies

The cottage-banks of the Bengali people have been growing up like mushrooms. But it is important to observe that they have been very tenacious,—they seem to be organically connected with their surroundings. There have as yet been very few failures. From 1914 to 1928 not more than 17 offices went into liquidation in the different districts of Bengal. The failure of the Bengal

National Bank in 1927 is perhaps the only instance of failure in Calcutta itself. Altogether, the Bengali mind may be taken to be cool and realistic enough in regard to banking enterprises to be able to withstand the repercussions of a few untoward circumstances in the business world. In any case the bank failures have not been serious and extensive enough to constitute at any time a real crisis in economic and financial Bengal. As for the situation of locked-up capital and frozen investments from which the Bengali cottage banks are suffering to-day, it is mainly but an aspect of the world-wide economic depression (1929-32) to which even in America, the traditional land of liquid capital, a large number of banks has fallen a victim.

We should analyse the present banking organization a little more intensively. As there are 800 banks, it means that there are at least 8,000 directors and all of them are bound by law to transact business according to "company methods." They are compelled to hold meetings, prepare balance-sheets and have the accounts audited by certified experts. Now these 8,000 men are not all law-yeas or Zamindars. Many of them are *pucca* business men, merchants, contractors, engineers, retail traders, exporters and importers. Naturally, therefore, joint-stock banking is becoming ingrained in the habits of the Bengali intellectuals and middle classes. And this habit is not confined to Calcutta or the district towns alone. It is diffused throughout the length and breadth of the country, not excluding some of the remote villages.

Let us take the banking situation now from another standpoint, namely, the question of employment for the middle classes. In order to run a bank, one needs, on

the average, a minimum of about six or seven persons including the manager at the top. We have therefore to visualise a bank-personnel of some five or six thousand managers, accounts, inspectors and clerks. These people are, it may be taken, not all graduates of the University. But whatever be their academic qualifications, they belong to what is generally described as *bhadralog* class, and they are all getting used to the technique and transactions of modern banks. In any case there is no doubt that a large number of Bengali intellectuals is being provided for in the new institutions, which have grown up as a result of banking adventure during our Swadeshi period. This is another evidence of the fact that for the last twenty-seven years Young Bengal has been taking to new careers and acquiring experience in the fields of practical commerce.

Indian'' Banks vs Exchange Banks in India

Lest we indulge in undue self-gratification in what we have been able to achieve up till now, it is desirable to weigh the values of our accomplishments by a more critical standard. Let us therefore measure our progress in the light of foreign banking experience.

To begin with, let us compare the developments of the joint-stock banking under purely Indian management with those of foreign (i.e., European, American and Japanese) joint-stock banking in India. The foreign banks in India are generally known as "exchange banks." In 1905 there were 10 in number and they commanded deposits worth about Rs. 170,445,000. To-day

the number has increased to 18 and the total deposits are to be estimated at Rs. 666,591,000.²²

Now, in the 33 Indian banks with capital at least Rs.500,000 each, the deposits are worth Rs.627,203,000. To this list may be added some 45 institutions, each with capital between Rs. 100,000 and Rs. 500,000. The deposits in these institutions are worth Rs. 35,751,000. Altogether, then, in these 78 large and medium joint-stock banks under Indian control, we have a total deposit of Rs. 662,954,000.

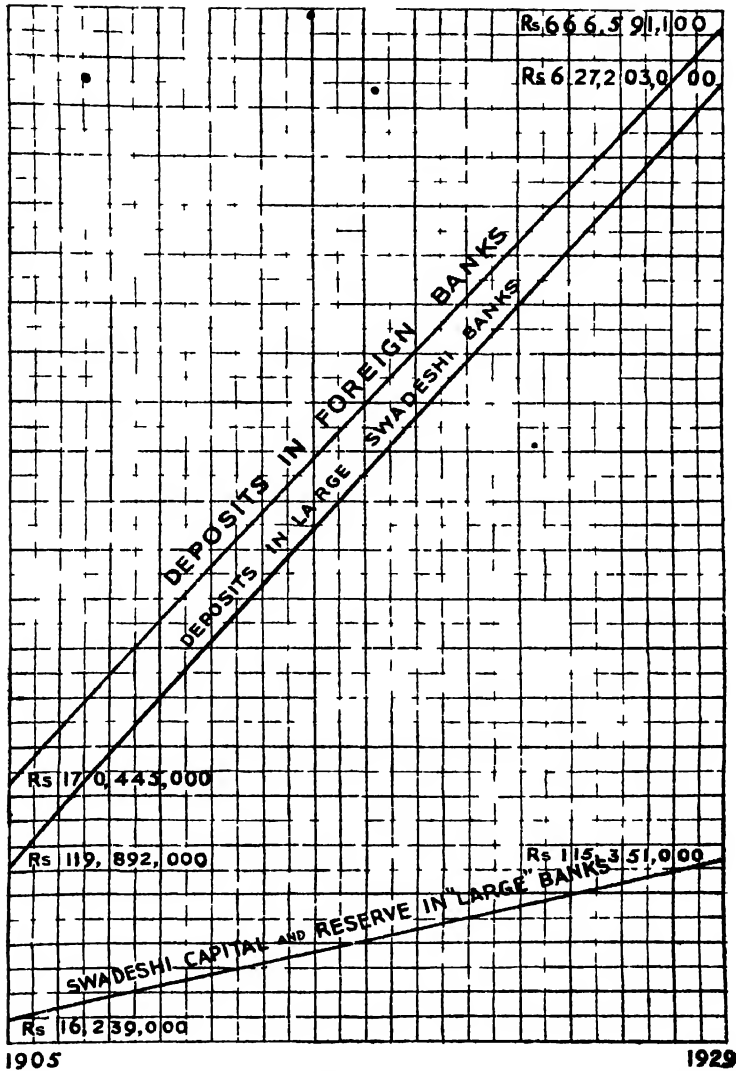
It is clear that to-day, as in 1905, the foreign banks are still absolutely somewhat superior to the Indian joint-stock banks in the amount of deposits. But "relatively" speaking, it is necessary to note that while in 1905 the Indian institutions were to the foreign in the proportion of Rs. 119,892,000 to Rs. 170,445,000 in deposit, to-day the proportion is Rs. 662,954,000 to Rs. 666,591,000. The tendency on the Indian side is represented by an increase to the extent of 5.5 times, while that on the foreign side is considerably less, namely, 3.8 times. One is convinced that the Indian concerns have been advancing at a comparatively higher speed than the foreign institutions.

Naturally enough, these foreign banks have grown in importance and number along with the growth in the volume of overseas trade. Down to 1905 there were only ten institutions, but down to 1870 there had been only three, as follows :

²² *Statistical Tables relating to Banks in India 1929* (Calcutta 1931), pp 56

(CHART V)

Progress of Large Indian Banks during the Swadeshi period
(1905-29)



N.B. The "smaller" Indian and Bengal "cottages" banks are not shown

(To face p 110)

Year of Establishment in India	Name	Nationality
1857	Chartered Bank of India, Australia and China	British
1862-65	National Bank of India	British
1870	Mercantile Bank of India	British

It is necessary to observe that the structure of exchange banking has been becoming more and more international, testifying as it does to the diversity of India's international relations in the domain of exports and imports. The growth of non-British foreign banks in India since the great war may be envisaged below :

Year of Establishment in India	Name	Nationality
1918	Bank of Taiwan	Japanese
1919	Sumitomo Bank	Japanese
1920	Imperial Bank of Persia	British (Persian)
1920	National Bank of South Africa	South African
1920	Banco Nacional Ultramarino	Portuguese
1921	Nederlandsche Handel Maatschappij	Dutch
1921	Nederlandsch Indische Handelsbank	Dutch
1922	American Express Company	American
1922	National City Bank of New York	American

It is to be observed, further, that two foreign non-British banks, the Russo-Asiatic Bank and the Deutsch-Asiatische Bank, were closed during the war, the former voluntarily and the latter being confiscated as a war-measure against enemy business. Two of the foreign non-British banks, established since the war, have retired, namely, the South African institution in 1924 and the Bank of Taiwan in 1930. On the other hand, two of this category of banks which function still in India, namely, the Yokohama Specie Bank (Japanese) and the

Comptoir National d'Escompte de Paris established their branches here previous to the War. Since the resumption of normal business relations with Germany at the end of the war this country has not yet sought to establish a branch of any of her banks in India. The German-Indian business is financed at present chiefly through the Dutch institutions.

The Morphology of Bank-capitalism in France (1923)

It will be appropriate to note at this stage the structure of bank-capitalism in one of the leading European countries. Let us take France.¹ For the year 1923 the organisation of banking institutions in France may be seen in seven groups. In French science it is the custom to distinguish only three classes or types of banks: (1) privileged banks like the Banque de France, (2) banques de depot (deposit banks) also called établissements de credit (credit institutions), which may be described, generally speaking, as ordinary, commercial or pure banks, i.e., banks as generally understood, and (3) banques d'affaires, i.e., business banks which specialize in the financing of business by actual participation or underwriting or issuing shares, which in German are generally called Spekulationsbanken, and may be characterized as "industrial" banks.

It is clear that the regional, district or mofussil banks are from the view-point of functions to be taken more with the deposit or credit banks than with the "business" banks of the tripartite classification. The three other

23 Levy "Banques et Banquiers," and "L'Organisation bancaire en L'Europe Nouvelle (Paris, 6 Dec 1924)

groups of the seven exhibited here owe their rationale to convenience rather than to logic.

The organisation of banking institutions in France, then, comprises the following seven types :

I. Privileged Banks.

1. Banque de France, established and constituted 1800-1809.

2. Credit Foncier de France (hypothec bank), established and constituted 1852-1856.²¹

3. Credit National (for facilitating the reparation of war-devasted regions).

4. Banques d'émission des colonies : colonial banks of issue or note-banks ; 8 in number.

5. Banque Nationale Française du commerce extérieur (for foreign trade).

6. Institutions enjoying state subvention or other special privileges :

(a) banques populaires : nearly 90 in number,

(b) co-operative working men's banks,

(c) agricultural credit banks : central, regional and local : co-operative,

(d) maritime credit banks,

(e) land-banks.

II. Credit-banks with branches.

1. Credit Lyonnais, est. 1863.

2. Societe Generale, est. 1864.

3. Comptoir National d'Escompte, est. 1852, reconstituted 1889.

4. Banque Nationale de credit, est. 1913.

24 Kaufmann : *Banque en France* (Paris 1914), pp. 79-85.

5. Credit commercial, est. 1894.
6. Credit industriel et commercial, est. 1859.

III. Banques d'Affaires (Business Banks or banks specializing in financing operations and company promotions).²⁵

1. Banque de Paris et des Pays-Bas, est. 1872.
2. Banque de l'Union Parisienne, est. 1904.
3. Credit Mobilier Francais, est. 1902.
4. Banque Transatlantique, est. 1881.
5. Smaller banks : nearly 40 in number ; almost all located in Paris.

IV. Banques Regionales (Mofussil Banks). Only those institutions which possess more than 10,000,000 francs (=Rs. 1,120,000) as paid-up capital are listed here : 24 in number.

(a) Northern districts :

1. Credit du Nord, est. 1886 (capital in 1923 : 62,500,000 fr.).
2. Banque Generale du Nord, est. 1858 (cap. in 1923 : 50,000,000 fr.)
3. Banque Scalbert, est. 1837 (cap. in 1913 : 30,000,000 fr.).
- 4-7. Four others.

(b) Eastern districts :

1. Societe Nanceienne de credit, est. 1881 (cap. in 1923 : 75,000,000 fr.).

²⁵ Caillet. *L'Aide à l'Industrie et La Liquidite des capitaux* (Paris 1928), pp. 117-134.

2. Comptoir d'Escompte de Reims, est. 1854 (cap. in 1923 : 20,000,000 fr.).

3. Societe Generale Alsacienne de Banque, est. 1881 (cap. in 1923 : 100,000,000 fr.).

4. Banque de Mulhouse, est. 1871 (cap. in 1923 : 72,000,000 fr.).

5. Banque d'Alsace et de Lorraine, est. 1871 (cap. in 1923 : 50,000,000 fr.).

6-9. Four others.

(c) Western districts :

1. Credit de l'Ouest, est. 1919 (cap. in 1923 : 28,164,000 fr.).

2. Comptoir d'Escompte de l'Ouest, est. 1848 (cap. in 1923 : 15,000,000 fr.).

3. Banque de Bretagne, est. 1909 (cap. in 1923 : 15,000,000 fr.).

(d) Southern districts :

Societe Marseillaise de credit, est. 1865 (cap. in 1923, 59,000,000).

(e) South-eastern districts :

1. Societe Lyonnaise de depots, est. 1865 (cap. in 1923 : 23,407,000 fr.).

2. Banque du Dauphine, est. 1911 (cap. in 1923 : 25,000,000 fr.).

3-4. Two others.

V. Banks operating in the colonies and in foreign countries.

(a) North Africa :

1. Credit Foncier Algerie-Tunisie, est. 1880.

2. Compagnie Algerienne, est. 1877.

3. Banque Francaise du Maroc, est. 1911.

4. Agents of Credit Lyonnais, Societe Generale, Comptoir National d'Escompte, and Societe Marseillaise.

(b) Colonies.

1-8. Banks of Issue, already noted in Group I.

9. Banque Francaise del'Afrique, est. 1904.

10. Societe financiere francaise et coloniale, est. 1904.

11. Agents of Comptoir d'Escompte in Madagascar.

(c) Foreign countries :

1. Societe de gerance de la Banque Industrielle de Chine, est. 1913.

2. Banque des Pays de l'Europe Centrale, est. 1922.

3. Banque des Pays du Nord, est. 1911.

4. Banque Francaise et Italienne pour l'Amerique du Sud, est. 1910.

5. Banque Franco-Serbe, est. 1910.

6. Banque Argentine et Francaise, est. 1909.

7. Societe Francaise de Banque et de Depots, est. 1898.

8. Banque de Syrie, est. 1919.

9. Agents of Credit Lyonnais, Societe Generale, Comptoir National d'Escompte, Banque de Paris, and Credit Commercial.

VI. " Individual Bankers " of Paris.

1. Rothschild Freres, 2. Mallet, 3. Verne, 4. Mirabaud, 5. Demachy, 6. Lazard Freres, 7. Heine, and other houses.

VII. Foreign Banks operating in France (21 in 1914, 39 in 1923).

(a) American :

1. American Express Co., 2. Bankers Trust Co.,
3. Equitable Trust Co., 4. Guaranty Trust Co., 5.
- International Banking Corporation, 6. National City Bank of New York.

(b) British :

1. Anglo-South African Bank, 2. Barclay's Bank Overseas, 3. Lloyd's and National Provincial Foreign Bank, 4. London and Brazilian Bank, 5. London and River Plate Bank, 6. London County Westminster and Parr's Foreign Bank.

(c) Canadian :

1. Royal Bank of Canada, 2. Bank of Montreal,
3. Banque Nationale de Quebec.

(d) Italian :

1. Banca Commerciale Italiana, 2. Banco di Roma,
3. Credito Italiano.

(e) Belgian .

1. Credit Anversois, 2. Banque Belge pour l'Etranger,
3. Banque Italo-Belge.

(f) Others :

1. Land Bank of Egypt, 2. Banco di Bilbao,
3. Banque Marmorosch, 4. Banco Espanol del Rio de la Plata, 5. Banco Nacional Ultramarino, 6. Banque du Commerce et de l'Industrie a Varsovie, 7. Banque Im-

periale Ottomane, 8. Bohemia, 9. Yokohama Specie Bank.

Without reference to the values of business performed we see at a glance that we in Bengal or for that matter in all India do not possess any institutions of the type described in Groups I and V. As for the type described in Group III (financing or industrial banks) there is no representative in India as yet. The banks corresponding to those in Group VII are of course very prominent in India. But the role of foreign banks in India as in the Balkan complex is indeed entirely different from that in France. The Bengali and other Indian joint-stock banks, whatever be the size, belong all to the Groups II and IV. And finally, the moneylenders and shroffs of India can hardly yet be described as belonging functionally to the class of "individual bankers" put together in Group VI. For all practical purposes, therefore, organised banking under Bengali and other Indian auspices has to be examined in the light of the "credi" or "deposit" banks and the "banques regionales" of France. Other circumstances remaining the same, the very absence of certain types indicates the poverty and primitiveness of the Indian people in modern economic organisation and capitalistic morphology.

The Anglo-American Level To-day

It is good to know exactly where we stand, and therefore it will be quite relevant to employ the world standard in the measurement of our present attainments. And undoubtedly, Indian banking,—we are speaking again of entire India,—will be found to be nowhere, in view of the fact that in England and Wales in 1924, with

a population (about 39,000,000) less than that of Bengal, there were over 8,000 banks or rather bank offices owned, as they were, by 13 large joint-stock institutions, commanding a deposit of some £2,000 millions. The combined capital of these firms is about £86 millions. Every Briton possesses, then, bank capital to the value of £2-4-0 (about Rs. 29) and bank deposit valued at £51-6-0 (Rs. 684). And from the standpoint of banking facilities it is to be noted that for every 4,777 persons there is one bank office in the country.

If we exclude America from our consideration, this development represents really the highest that is to be found in the world to-day. It would therefore be but the idle vanity of a pigmy to attempt measuring his strength with a giant, when developments in Bengali banking were talked of seriously in connection with the British banking of to-day.

But let us not fight shy of taking note of the American developments. In 1927 there were some 27,000 banking institutions in the U.S.A. commanding as they did a total deposit of 56,735,858,000 dollars. Something less than one-third of this amount constituted the deposit of the 100 largest banks. In other words, the name of smaller and medium-sized institutions is legion. Now, the American population is to be counted at 117,136,000. This gives a bank office to every 4,338 persons. From the standpoint of banking facilities, America is thus a bit higher than Great Britain. And otherwise American conditions register a much too high level even for Great Britain. For, every American possesses a deposit to the tune of some 484 dollars (about Rs. 1331), and bank capital per head of the American population would

come up to about 25 dollars (i.e., Rs. 68-12-0). (One dollar = Rs. 2-12-0).

But the situation after all is not disheartening. There is another method of comparison even by the world-standard which it is no less reasonable to employ in the present instance. And this, instead of overpowering us with the sense of our insignificance, is likely to encourage our business men and bankers with an eye to the future possibilities.

In the first place, not every Western or independent country is an England or America. By the American or British standard many of the independent powers, great or small, will be found to be lagging behind. It is possible to remain a sovereign state as well as to be a modernized land without rivalling Great Britain or America, in the standard of living, national dividend or general economic efficiency.

Banking in Italy (1849-1893)

Italy is a European country and a "great power" too. But in banking neither the present situation nor the tradition of Italy is anything but second-rate.

To Italy indeed "modern Europe" owes her oldest banks and instruments of credit. But all the old Italian institutions perished during the social transformation of the French Revolution. The only exception is the *Monte dei Paschi*, a land-mortgage bank, whose origins are to be traced to the beginnings of the 17th century, much anterior to the Bank of England. But, for all practical purposes, modern banking in Italy is not older than the Peace of 1815 and dates really from 1844-1849, when

the *Banca Nazionale nel Regno* was established as the result of union of two banks in Genoa and Turin.

The story of this bank, which by the bye is a note-bank, is but a cumulative record of loans granted to the government and of the government's appreciation of its services by allowing it to ignore the law in regard to the relation between notes and metallic reserve as well as the obligation to redeem its notes in specie. The privilege of having its notes declared by the government as forced currency was perpetually enjoyed by the *Banca Nazionale* as well as its predecessors, e.g., in 1848, 1859, 1866, and 1868—all through the period of Italy's political travail towards independence and unification. This sort of banking may be described as patriotic, political or war-banking and can hardly belong to the category of normal economic bank transactions such as are based on the proper calculation of risks and judicious administration of investments.

During this entire period of *risorgimento* (1848-1870), memorable in the history of nationalism on account of the exploits of Mazzini, Garibaldi, Cavour and others, there were altogether half-a-dozen note-banks in Italy. Each of these was pursuing an extra-legal, un-economic, politically privileged, in one word, abnormal banking career such as can furnish no example to any people that intends to embark upon a course of lawful and constitutional bank evolution.

Soon after the formation of modern Italy a law was passed in 1874 to bring some sort of order out of the chaos in the banking world. But down to 1893 when the *Banca d'Italia* was established and the foundations of contemporary Italian banking were laid, the law was

again virtually a dead letter both as regards metallic reserve as well as the discounting of papers. Not only French and other foreign critics but eminent Italian economists including Pareto have condemned the scandalous liaisons between politicians and the banks that marked the history of these two decades. The ministers of finance were involved in the complications amounting even to falsifications of accounts and reports. Italy was a member of the Triple Alliance and had an expanding war-budget. The military actions against Abyssinia proved abortive. In order to get loans from the banks, the government connived at everything illegal and un-economic that was going on. The banks were allowed to indulge in building speculations, land speculations and public works speculations of all sorts. The *Banco Romano* fell in 1893 and the remaining five note-banks were found to have destroyed or otherwise rendered immobile all their resources.²⁶

Italian Private Banks (1927)

We need not pursue the story of the *Banca d'Italia* down to our own times. Let us indeed exclude the note-bank of Italy from our consideration and confine our attention to the ordinary private banks. The big nine are described as follows with their deposit figures as at the end of 1927 :²⁷

²⁶ Canova : *Le Banche di Emissione in Italia* (Rome 1912), pp. 17-140. For recent development in "private" banking (1912-22) see Segre : *Le Banche nell' ultimo decennio* (Milan 1926).

²⁷ *Bolletino Mensile di Statistica* for August 1931 (Rome), p. 834.

	Lires .
1. Banca Commerciale Italiana ...	994,500,000
2. Credito Italiano ...	1,046,500,000
3. Banca Nazionale di Credito ...	177,600,000
4. Banco di Roma ...	486,200,000
5. Banco di Napoli ..	536,900,000
6. Banco di Sicila .	652,200,000
7. Banca Agricola Italiana	637,100,000
8. Banca d'America ed'Italia ...	136,400,000
9. Istituto Italiano di Credito Marittimo ...	86,800,000
Total deposits (1927)	4,754,200,000

In 1927 the population of Italy was estimated at 40,411,000 inhabitants. Per head, then, the Italians may be said to have commanded deposits in the larger banks to the value of 119 liras. At the rate of 92·65 liras per pound sterling (i.e., nearly 7 liras = 1 Rupee) this means a deposit of some Rs. 17 per head. This figure may be placed by the side of Rs. 10 per head in Bengal. We get then the following equation in bank deposits per head :

$$\text{Italy (1927) } 17 = 1.7 \text{ Bengal (1927).}$$

In bank deposits, in banking habit, in commercial modernism, or in modern capitalism every Italian is then 1.7 times as equipped or efficient as every Bengali. The equation indicates that Italy to-day on the strength of nine big institutions alone is somewhat ahead of Bengal.

It is necessary to observe that in the case of Bengal but not in that of Italy have we tried to be exhaustive so far as "organised" or joint-stock banking is concerned. Besides, in the case of Italy we have excluded

savings banks, co-operative credit societies and the like. The nearest approach to a scientific comparison between Italy and Bengal would consist in posing the per head deposit in the Imperial Bank, the exchange banks and large Indian joint-stock banks against this Italian average of Rs. 17. Leaving aside the Bengali loan offices, co-operative credit societies and savings banks we get the following equation :

Italy (1927) 17 = 2.6 Indian average (1929) 8-8-3.

Altogether, the average Italian should not appear to be frightfully ahead of the average Bengali (or Indian) in regard to bank deposits and banking habits. But it is necessary also to remember that the deposit figures considered here, as given by the *Bolletino mensile di statistica*, refer only to time deposits. The current deposits have been excluded here but may be seen in one of the tables exhibited later. When all these figures are taken into consideration, Italy should not appear to be as poor by the Bengali standard as at first sight she looks. And yet the comparison is still faulty. In regard to Italy we have taken only the big nine among the commercial banks. It is well known that in Italy as in other countries the name of medium and small banks is legion. So far as Italy is concerned the actual number, after amalgamations and liquidations of the period 1926-30, is 1411.

British, French and German Banking about 1870

Italy represents certain aspects of shortcomings in the banking of modern sovereign powers. It is, further, very important to remember in this connection that the earlier stages of modern joint-stock banking in the other countries

of Europe and America also were not more glorious and reassuring than what we find in Bengal to-day.

In England, for instance, it took 50 years (1836-1886) to raise the combined capital of banks from £10 millions to £40 millions. About 1840 there used to be bank failures in England at the rate of 24 or 25 per year. In 1870 there were not more than 970 bank offices owned by 133 joint-stock concerns. Besides, it was so late as 1858 that "limited liability" principle was admitted by England in banking business.

In France modern joint-stock banking cannot be traced back further than 1848, when the *Comptoir d'Escompte* was established. So late as 1870 there were only 19 *departements* or districts in which France possessed banking institutions as branches or main offices. In other words, 74 *departements* or districts did not possess any bank at that time. And there were not more than 5 or 6 cities which possessed more than one bank. The banking mentality of France about 1870 may be gauged from the fact, that as soon as the Franco-Prussian War broke out, the panic led to a run of 70 per cent on the accounts of the *Credit Lyonnais* and 85 per cent on those of the *Societe Generale*.

In Germany between 1851 and 1870 the total capital of all joint-stock banks did not go beyond 100 million Marks (1 Mark = 12 annas approximately). About 1870 the combined capital of great banks newly established was somewhat near 100 million Marks. These are high figures indeed, but yet not inconceivably high for the Bengali banking imagination and experience of to-day..

Altogether then it will appear that the work that Young Bengal as well as the whole of Young India have

been able to show in the line of joint-stock banking during the period of the Swadeshi Movement is not insignificant in the background of the "beginnings" of "modern" banking in the Western world. By 1870 neither France nor Germany attained or even approached the condition that has rendered them so powerful to-day. Italy's position, of course, was much weaker then and even to-day is, comparatively speaking, nothing but second grade, as we have seen above. In 1870 "modern" Japan, again, hardly existed at all. It is about 1886 that the Japanese people began to novitiate in modern constitutional, commercial and industrial life.

Japanese Banking (1872-1927)

In many respects Japan is the Germany of Asia. The modernism began in both countries almost at the same time (c. 1870). And Japan's growth in banking as in other items is almost phenomenal. Let us then try to size Bengal up by the Japanese standard.²⁸

In 1927 the total deposits of all denominations in all Japanese banks, special, commercial and savings, amounted to 11,403,399,000 yens and the paid-up capital to 2,000,000,000 yens. With a population of some 60 millions, the deposit per head comes up to 190 yens (about Rs. 238) and every Japanese possesses bank capital to the value of some 33 yens (nearly Rs. 41). To-day the banking institutions are numbered at about 2,100, and the number of branches has gone up to about

²⁸ *Financial and Economic Annual of Japan 1928* (Tokyo); Uyehara. *Industry and Trade of Japan* (London 1927), *The Japan Year Book 1928* (Tokyo); *Present Day Japan 1927* (English Supplement of the *Osaka Asahi*).

6,000. For every 7,400 persons then there is a bank office in Japan. This is to be compared to the 4,777 in Great Britain and 4,338 in the U.S.A. For certain purposes, then, Japan may be said to have already reached the British and American levels. Accordingly, she is already too high for the Bengali people, who possess some 800 institutions only for about 47 million persons, and whose bank capital per head is yet negligible as a figure, being less than two Rupees.

But modern banking in Japan dates from the National Bank Act of 1872. By 1876 there were only 150 banks. And in 1907 there were altogether 2,194 institutions with 921 branches, i.e., nearly 3,115 bank offices throughout the Empire. The total paid-up capital of these institutions could be calculated at 444,204,041 yens. Twenty five years ago the population was about 50 millions. Every Japanese had at his or her command bank capital to the amount of about 9 yens (i.e., Rs. 11-4-0). One yen = Re. 1-4-0 (1930).

In other words, the growth of Japan during the first 35 years of her modernism evolved a condition of per capita bank capital at Rs. 11-4-0. This rate is, comparatively speaking, quite modest by the progress achieved during the next two decades (1907-1927), namely, the condition of Rs. 41, as registering the value of banking capital per head of the population. Evidently, Bengal to-day is way behind Japan, as she was in 1907.

Diversity of the Great Powers

There are, as we have seen, differences in the level as well as the rate of progress between the "great powers." But for all practical purposes, we may consi-

der the pioneering nations of Eur-America to be about a generation and a half or rather two generations ahead of us. It is important to remember that we have begun well, and that the rate of progress being what it is, the most objective and hard-headed business men of Bengal can legitimately believe that it will not be long before we attain the level of banking of which any nation may be proud.

The moral is clear. The experiences of the U.S.A. and England as well as of France and Germany, but especially of Italy and Japan, should be eye-openers to all rising nations. It does not take centuries and milleniums to become modernized in regard to bank-technique, industrialization or business organization and also to make one's power felt in the world of commerce and culture.

Incidentally be it remarked that Young Bengal, ambitious as she has for some time been to develop capital and industrial power, should make it a point to cultivate acquaintance of the "younger peoples" of the modern world especially of Italy and Japan and derive inspiration as to the great possibilities that await her in the near future. This is but another reason why in India to-day it is absolutely necessary for the business men as well as intellectuals to devote increasing attention to the study of Japanese and Italian as well as of French and German economic developments and to the promotion of commercial and cultural contact with these powers.

Bank Functions and Bank Management

Not many banks under Bengali management

pursue their career as chiefly "commercial" institutions. Very few, if any, specialise in the financing of buying and selling in Calcutta as well as between Calcutta and the mofussil. The existing 800 banks of Bengal generally call themselves Loan Offices, as we are all aware. To a certain extent they serve the function of pawnshops, but their main business consists in the advance of money against lands and house properties. They belong indeed to the general type of land-mortgage banks. Some of them have taken to the financing of trade in a subsidiary capacity. But it is this financing of trade that ought to be the primary function of several new banks or old banks reconstituted.

What we need from the banks is a new type of service for their field of operations. By the world standard, again, it may be pointed out that, functionally speaking, this would be really but the kindergarten stage of commercial banking. The functions of commercial banks in Eur-America and Japan, as well as the foreign "exchange banks" in this country, exhibit a much higher and more complicated range. The buying and selling of bills of all sorts, "acceptances," "re-discounts" and so forth, belong to a bank language, the very alphabet of which we Bengalis have hardly commenced mastering. Then there are the more ambitious functions of industry-underwriting, speculation in the stock exchange shares, etc., in which modern banks and very often new types of banks are specialising. But infants as we are and incapable as we generally are at the present moment of venturing on these novel services, the establishment of several commercial banks is to be evaluated as an important landmark in the banking evolution of

Bengal from the standpoint of functional growth. These are signs leading one to hope that dozens of commercial banks are going to be started in the course of the next few years.

Let us here analyze the balance sheets of some German banks in order to get an idea of the higher flights of which modern banking is capable. They will in any case furnish us with good object-lessons in bank management.

Like other banks and business concerns of Germany in general the Commerz-und-Privat Bank has since the stabilization of the currency (1924) strenuously striven to reorganize the administration. The reorganization has invariably meant retrenchment and this has resulted in (1) a reduction in the number of employees and (2) the installation of machine work replacing thereby human labour.

Commerz-und-Privat Bank

The Commerz-und-Privat Bank had deputed technical experts to the U.S.A. in order to investigate the employment of labour-saving appliances in the offices and workshops of that country. The results of their research have since been adopted by the authorities.

In 1925 this bank had to close 16 small branches, and found it necessary to reorganize 59 branches on a sound basis. The year began with 10,260 employees but ended with 7,100.²⁹

The business on the stocks and securities side was

²⁹ The reports are published in several numbers of *Das Bank Archiv* (Berlin).

weak during the whole year. Since May the rates have been unfavourable. The exchange could feel appreciably that the prosperous interest-enjoying class has ceased to exist or function in an effective manner. The scarcity of investment-seeking capital was a prominent factor in the difference between pre-war and post-stabilization times.

Very few companies were in a position to declare dividends. As a consequence, shareholders, especially those to whom the proceeds therefrom constituted a source of daily bread and butter, were compelled to sell the shares. The number of profitable transactions in which the Bank could participate was therefore small.

The net profit of the Bank was, however, 5,124,540 M (including 464,635 M carried forward from 1924). This was distributed in the following manner :

4 p.c. dividend on the share-capital (42,000,000M)	...	M	1,680,000
Profit-sharing for Directors	...	M	235,000
4 p.c. additional dividend	...	M	1,680,000
Carried forward	...	M	1,529,540
			<hr/>
		M	5,124,540

Dresdner Bank

The Deutsche Bank and the Disconto-Gesellschaft had lower net profits in 1925 than in 1924. But the net profit of the Dresdner Bank for 1925 is several thousand Marks higher than for 1924.

From bills of exchange and interest, etc. the income was 30.7 million M in the place of 33.9 million M in 1924. Commission accounted for 36.9 million M as

against 42.1 million M in 1924. The income from permanent shares in banks was 1.2 million M. From other sources the income amounted to 0.443 (0,539 million in 1924) million M. The total gross profits came down to 69.5 from 76.7 million M of 1924.

But on the other hand the expenses came down very considerably. The management, pensions and compensations account sank from 61.1 to 55 million M, the taxes from 3.9 to 3.7 million M and the costs on furniture, installations, building repair and construction from 3.2 to 2 million M.

Including the balance of 0,156,000 M carried forward from 1924 the balance sheet for 1925 shows a net profit of 8.67 million M. This is to be compared to 8.349 million M of the previous year. In 1913 the figure was 29.3 million M.

Retrenchment was brought about by the reduction in the number of employees. In 1923 there were 24,853 persons employed by the Dresdner Bank. The number was brought down to 11,567 in 1924. A further reduction has placed the figure at 9,484 towards the beginning of 1926. It may be observed that in 1913 the employees were numbered at 4,700.

The retrenchment affected the higher officials also, their number being reduced to 1065. In 1924 the staff consisted of about 2,000 superior officers.

Only one branch office was closed during the year. In 1925 there were 94 centres at which the Dresdner had its own representative.

The dividend was declared at 8 per cent. As the share capital was 78 million M, the amount on dividend account for 1925 was 6.7 million M. The portions avail-

able for profit-sharing for the Board of Directors accounted for 0,252,000, the same as in 1924. .

The Deutsche Bank and the Disconto-Gesellschaft failed to contribute anything to the reserve. But the Dresdner placed 1·6 million M in this account as against 1·4 million M in 1924. The total reserve in 1925 was counted at 25 million M.

The pensions account showed 0·35 in the place of 0·3 million M of the previous year.

The creditors of the Dresdner rose in value from 684 million M to 1003 million M. The rise is extraordinary, especially in view of the fact that of all the great banks this is the first to exceed the pre-war limit. In 1913 the value of the creditors was figured at 958 million M.

The value of participation of the Dresdner in business enterprises amounted to 11,152,000 M (cf. 12,831,000 M in 1924). The permanent participations in banks and other credit institutions rose in value from 22·4 to 23·3 million M. The two most important of such institutions are the Deutsch-Suedamerikanische (German-South American Bank) and the Deutsche Orient-Bank.

The Proehl and Gutmann Co. of Amsterdam is a very prominent favourite of the Dresdner. Contributions to the loans of the Rheinstahl and Ufa (both German companies) came from the Dresdner in rich proportions. In the establishment of the new Hypothekenbank at Danzig and Nederlandshe Credietverzekering Maatschappij of Amsterdam, the Dresdner likewise played an important part.

Disconto-Gesellschaft

For the year 1925 the Disconto-Gesellschaft³⁰ declared a dividend of 10 per cent. This was the rate for 1924 also. The net profit was "moderate," counted at 10,667,000 M, somewhat lower than that for 1924 (namely, 10,772,000 M). For 1913 the figure was 25,727,000 M.

Bills of exchange and interest yielded 25,203,000 Marks in the place of 25,804,000 M of 1924. Stocks and securities accounted for 1,766,000 M against 4,918,000 M of 1924 and "provisions" (commission) brought 24,799,000 M compared to 30,827,000 M in 1924.

The Disconto-Gesellschaft possessed the total share-capital of the Nord-Deutsche Bank and the Schaffhausen Bank. The profits of these two institutions brought to the D.G. the sum of 1.2 million M, a huge fall from the 2.5 million M of 1924.

There were several other banks and credit institutions in which the D.G. was a permanent and prominent shareholder. Out of the proceeds from these sources the D.G. obtained 2,305,000 M, a phenomenal rise from the 0,324,000 M of 1924.

Corresponding to the fall in the incomes there was a fall in the total expenses of administration. From 49,483,000 M of 1924 the figure came down to 42,498,000 M in 1925. The sinking of expenses was accounted for also by the reduction in profit-sharing as

30 It has been amalgamated with the Deutsche Bank in 1930 and does not at present possess an independent existence. See *Infra*.

enjoyed by "proprietors," directors, procurists and employees.

The lowering of costs on the "personal" side took place to the extent of 6 per cent only. The chief factor in the reduction came from the side of materials including building costs. Some of the centres of work were closed, thereby leading to considerable retrenchment. But a very important element in the lowering of management expenses was furnished by the introduction and expansion of mechanical apparatuses.

Altogether 14 agencies and "local" centres were closed. The year 1926 began therefore with the remaining 83 branches. To this number have to be added the 27 branches of the Schaffhausen and 4 of the Nord-Deutsche.

In 1923 the employees of the D.G. numbered 17,400. In 1924 the number came down to 8,912. At the end of 1925 further reductions brought it down to 7,365. The authorities might have still more reduced the number of employees but the work of reconstruction in accordance with the requirements of the new gold currency and higher price system necessitated an extra supply of hands. The rates of salary paid to the officials did not indicate however any sinking.

In 1925 the D.G. purchased shares of the West Deutsche Eisenbahngesellschaft (West-German Railway Co.). The bank also promoted the establishment of new companies. One of these is the Manganese Concession Syndicate (Tschiaturi) founded by the American financier Harriman with the object of exploiting the manganese resources of the Caucasus. Another new firm is the Zugtelephonic Co. In regard several business concerns

the D.G. has contributed to loans and the increase of capital. Altogether this item accounts for 19.7 million M in the place of 22.6 million M in 1924.

Three Directions of Growth

The balance sheets of German banks exhibit policies and business methods such as lie far beyond the ken of the Bengali loan offices. But these latter have filled a void in financial Bengal by enabling the middle class men to develop their deposit habit on the one hand and the landed classes to maintain their solvency on the strength of their land-credit on the other. To what extent, however, these institutions are distributing their resources along genuinely and in the long run productive channels may not fail to be an appropriate theme for technical discussion in business circles.

For the present, that issue may be avoided, especially because actual statistics in this regard are not available. It is evident, however, that to us in Bengal, not only to the business men but also to the students of the theory and practice of banking, nothing is more valuable as a discipline in economic statesmanship than the comparative statistics of America, England, France and Germany, from, say, 1850 to 1875 and that of Italy and Japan between 1875 and 1905. The defects of our banking situation will be visualized by everybody as soon as one looks to the figures of these periods bearing on the great powers. It is perfectly clear that numerically, i.e., in point of banking facilities, bank capital or deposits per head of the population, Bengal has quite a long distance to make up. Along this direction the possibilities of growth are immense. Secondly, in point of bank functions Bengali

institutions are just commencing but the A.B.C. of a new life. The functional growth will need a long series of bold experiments and adventures. There is a third weakness in our present condition in addition to these numerical and functional weaknesses, and that is as a rule likely to be ignored by theoreticians as well as by practical men. But comparative statistics will not fail to exhibit that defect in the Bengali system and suggest a new direction of growth as well.

Economic Units in Banking

We are speaking of the shortcoming in the business organisation, the morphology of banks, their structural characteristics. To-day indeed we are getting used to joint-stock enterprises, the limited liability principle and company management. But there is an important aspect of business administration which remains yet to be mastered by our financial heads. They have to remember that there is a limit below which the size of a commercial or industrial business as of a land-holding cannot be made to go without losing in efficiency. And so far as banks are concerned, that limit is pretty high. If "cottage industries" have disappeared and have been disappearing from the world it is mainly because of this law of limits in regard to size. In order to be paying concerns, i.e., economically worth while propositions, the undertakings must have to be sufficiently large in dimensions. Until they reach these dimensions they would fail to be real "economic units." "Small holdings" must not be too small.

It is difficult to say exactly what should constitute an economic unit in regard to banks under the present

financial and economic conditions of Bengal. The Japanese people have introduced a law (1927) to the effect that no institution be allowed to enter banking business unless it possesses paid-up capital ranging from 500,000 to 2,000,000 yens. The law of Bulgaria (1930) does not allow any bank to be established in Sofia with capital under 30,000,000 lewas (=Rs. 600,000).

We need not stress this point right now in connection with our country, especially because Japan is in certain respects already on the Anglo-American level. But in this instance as in many others the experience of bank evolution in other lands is instructive. In Europe and America as well as in Japan the pressure of circumstances has compelled the smaller banks to pool their interest and consolidate themselves into larger ones.³¹ This concentration has enabled them to strengthen their financial resources, and along with it augment their capacity to bear risks. Unification, fusion, community of interests, merger, cartellization and trustification. —no matter what be the name, the world has been growing in the direction of centralised and consolidated capital-structures. The larger the amount of capital, the greater the chances of success. This is the verdict of bank-history in the advanced countries of the world during the last two generations. Bank concentration, like large scale production in other lines, has proved to be a technical necessity. And to-day, in the name of "rationalization," the movement has got a tremendous fillip,—nay, assumed almost a

31 See the essay on "Die Ursachen und Wirkungen der Konzentration im deutschen Bankwesen" in Schumacher: *Weltwirtschaftliche Studien* (Leipzig, 1911); Edward: "How Far will the Bank Merger Movement Go?" in the *Bankers' Magazine*, New York, June 1926.

revolutionary character. From 1322 institutions in 1920 the number of Japanese banks went down to 955 in 1929. In Italy during 1926-30 nearly 450 deposit banks have either liquidated or merged.

Rationalisation in Bengali Banking

In Bengal also the banks will have to think of adopting measures by which they are enabled to improve their risk-bearing capacity, undertake greater risks if need be and thereby strengthen their positions as economic units as well as inspire the increased confidence of the investors and business men. They will have to rationalize their resources and attempt unifications or consolidations, if not of the latest type, at any rate, of the types familiar to the world in the third and fourth quarters of the nineteenth century.

Bank-concentration is a subject to which we have been inviting the attention of our countrymen since the end of 1925. One may believe that the exigencies of practical business will compel several groups of our institutions to see their way to enlarge their capital by some species of pooling, merger, fusion or amalgamation among themselves.¹²

In regard to this concentration or consolidation, of course, the banks will have to seek the "natural affinities" as their partners in the new formations. An outsider, whether an "expert" or a "patriot," could hardly suggest as to which bank in which district should come to terms with this or that institution in the same district or else-

32 Lewis: "The Bank Consolidation Movement" in the *American Bankers' Association Journal* (New York) for June, 1926.

where. Concentration is essentially a question of accumulated business experience, the tradition of trade transactions and other previous connections. The fundamental motive behind it should naturally be the enlargement of capital and the strengthened command over the financial confidence of the business men.

The Next Decade of Bengali Banking

Bengali banks have to advance in number. They have to advance in the line of services and functions. And they have to advance in the technique of administration, both internal and interbancal. We have an uphill work along the entire front of banking enterprise for the next decade, indeed, for the next quarter of a century. It is in this self-conscious manner, with the full awareness of its present-day limitations, that the Bengali people should chart its immediate future.

The objective of Young Bengal is indeed nothing short of the highest achievement that the world admits of. But we must not practise blindness to the stern realities. To-day in modern banking we happen to find ourselves, numerically, functionally as well as morphologically, somewhere near the level of world-progress attained by the pioneers of modern industry and commerce, say between 1848 and 1870. But the youngsters also grow, and comparative statistics is nothing but encouraging. There is every reason to look forward to the future in the belief that our rate of progress will continue and improve and that we shall in the course of the next generation or so succeed in catching up to the great commercial and industrial nations or in any case rising close to and marching along with them in a respectable capacity.

While on this pathway upward an inspiration may well be drawn from British banking of the last two decades (1905-1926).

In January 1925 the deposits in the ten clearing banks totalled £1,693,058,000 while in May 1926 the figure was £1,626,909,000. The ten banks are the following : (1) Bank of Liverpool, (2) Barclays, (3) Coutts, (4) Glyn Mills & Co., (5) Lloyds, (6) Midland, (7) National, (8) National Provincial, (9) Westminster, (10) Williams Deacons.'

In January 1925, the ten banks made a total advance of £834,818,000. This made up 49·3 per cent of their total deposits (£1,693,058,000). But in May 1926 the advances totalled £893,332,000 against £1,626,909,000 making a per centage of 54·9. In the words of Mr. Beaumont Pease, Chairman of the Lloyds Bank, most of these advance were absorbed by legitimate business expansion.

On the basis of 1905 furnishing the 100, the deposits, current accounts and note circulation of all British banks (including the Bank of England) rose to 303 in 1925 (from a total of £925,000,000 to £2,803,000,000).

The amount of cash in hand, call and short notice rose during the same period from 100 to 274 per cent (from £253,000,000 to £692,000,000).

And the rise in the amount of bills discounted, advances and loans is from 100 to 289 per cent (from £573,000,000 to £1,656,000,000).

It is important to observe that during these 20 years the banks followed in the main the policy of maintaining between 24 and 30 per cent of the total deposits

etc. as cash in hand and at call, etc. In 1905 it was 27 per cent and in 1925, 25 per cent.

In regard to discounts, advances, etc. the lowest watermark was reached in 1916 when only 46 per cent of the deposits was employed for these purposes. In 1907 it was 63 per cent and in 1925, 59 per cent.

The total population of Great Britain and Ireland (including the Isle of Man with its 60,238 inhabitants) was 47,217,987. In 1925 the total assets of the British banks made the figure of £3,179,089,259. This gives £67-6-6 per head of the population. The tendency in recent years is indicated as follows: £66-2-2 in 1922, £64-16-2 in 1923, and £66-7-9 in 1924

The Act of 1826 permitted the application of joint-stock principle to banking. In 1825 there were 554 private houses with 68 branches. In 1924 there were only 2 private firms with 2 branches and 13 joint-stock institutions possessing 8,080 branches.

This bird's eye view furnishes indeed an idea of the general lines of growth along which Bengali banks are likely to move, should they happen to be destined for a career of prosperity.

The Central Bank of India as an Example for Young Bengal

While watching the Himalayan heights of Eur-America and Japan we Bengalis should not however be blind to the fact that for us it is not necessary to go outside of India in order to cite the story of a banking institution on a really large scale. Leaving aside the branches of foreign institutions, the so-called "exchange banks," we may refer to the 100 per cent Indian enterprise, the Central Bank of India, which has been functioning since 1912.

The dimensions of the Central Bank of India are anything but ordinary. The evolution of deposits³³ with the C. B. I. is exhibited below in quinquennial periods :

(a)		(b)	
1912	Rs. 11,000,000	1917	Rs. 35,747,000
1913	4,061,000	1918	49,850,000
1914	3,040,000	1919	95,772,000
1915	5,030,000	1920	113,625,000
1916	14,667,000	1921	133,930,000
(c)		(d)	
1922	Rs. 132,200,000	1927	Rs. 155,200,000
1923	156,900,000	1928	144,00,0000
1924	138,616,000	1929	126,400,000
1925	141,567,000	1930	148,000,000
1926	168,978,000	1931	171,336,000

The ups and downs of the deposit-curve are noticeable, but all the same we encounter here the experiences of a steady growth upwards. These experiences of two decades (1912-31) point as much to the expansion of capitalism under Indian auspices as to the progress in industrialization, bank-management and the people's confidence in joint-stock credit.

Beginning with a staff of thirty, the C.B.I. has on its employment rolls to-day something above 1,000 persons. In addition to the five branches in Bombay there are altogether twenty-one branches in different parts of India, of which three are located in Calcutta. The

33 Figures collected from the annual balance sheets published by the C B I. In 1928 the reserve was reduced by Rs. 2,500,000 in order to establish a contingency fund for adjusting fluctuations in values of gilt-edged investments, etc.

scope of "active" services rendered by this bank to the trades and industries of the country can be seen in the following figures relating to loans and other advances (i.e., 1. Cash credits and demand advances, 2. Loans and 3. Bills discounted and purchased):

(a)		(b)	
1912	Rs. 8,000,000	1921	Rs. 92,114,000
1916	10,000,000	1922	85,528,000
1917	26,000,000	1923	113,925,000
1918	54,000,000	1924	June 100,710,000
1919	54,000,000	1925	92,143,000
1920	72,000,000	1926	90,871,000
(c)			
1927	96,979,000	1929	78,341,000
1928	98,917,000	1930	69,804,000
1931	62,270,000		

For the bankers of Young Bengal it should be instructive also to note that the C.B.I. made its debut with a rather small "paid-up" capital of Rs. 1,000, 000. The growth of capital and reserve as well as the dividend rates may be seen in the following schedule.

(a)			
	Paid-up Capital	Reserve	Dividend
	Rs.	Rs.	p.c.
1913	1,500,000	100,000	3
1914	1,500,000	100,000	nil
1915	1,500,000	100,000	4½
1916	1,500,000	160,000	6½
1917	2,500,000	300,000	7½
1918	2,500,000	600,000	8½
1919	4,990,000	1,400,000	11
1920	4,990,000	1,900,000	14

(b)

	Paid-up Capital	Reserve	Divi
	Rs.	Rs.	p.c
1921	4,990,000	2,500,000	14
1922	5,000,000	3,000,000	14
1923	16,813,200	10,000,000	10
1924 June	16,813,200	10,000,000	10
1925	16,813,200	10,000,000	10
1926	16,813,200	10,000,000	10

(c)

	Rs.	Rs.	
1927	16,813,200	10,000,000	10
1928	16,813,200	7,500,000	4
1929	16,813,200	9,300,000	6
1930	16,813,200	8,620,000	6
1931	16,813,200	8,820,000	6

Comparative Bank Management

Leaving aside the question of dimensions in capitalism as embodied in the size of banks let us go into some other details of comparative bank-management and place the C.B.I. figures in the perspective of big Eur-American and Japanese banks. Attention is being invited to one item. The proportion of reserve to capital with the C.B.I. was for five years (1923-27) nearly 59·5 p.c., and in recent years it has been 44·6 p.c., 53·3 p.c., 51·1 p.c., 52·3 p.c., etc. In Italy, France, Germany, as well as to a certain extent in Great Britain and Japan the practice does not appear to be much different from that followed by the C.B.I., although uniformity is of course

not to be expected. The following schedule gives the capital, reserve as well as the proportion of the latter to the former in some of the big banks of these countries in 1929:³⁴

	Capital Lires	Reserve Lires	Proportion
1. Banca Commerciale Italiana	700,000,000	560,000,000	80%
2. Credito Italiano	400,000,000	210,000,000	50.2%
3. Banco di Roma	200,000,000	50,000,000	25%
	Francs	Francs	
4. Societe Generale Paris	625,000,000	306,573,000	48.9%
5. Banque Nationale de Credit Paris	262,500,000	123,356,000	46.9%
6. Banque de l' Union Parisienne	200,000,000	126,130,000	63%
	Reichsmarks	Reichsmarks	
7. Deutsche Bank und Disconto Gesellschaft	285,000,000	160,000,000	56%
8. Berliner Handelsgesellschaft	28,000,000	15,000,000	53.5%
9. Commerz-und Privat Bank Berlin	75,000,000	40,500,000	54%
10. Dresdner Bank	100,000,000	34,000,000	34%
	£	£	
11. Barclays Bank London	15,858,217	10,250,000	64.6%
12. Lloyds Bank London	15,810,252	10,000,000	63.2%
	Yens	Yens	
13. Sumitomo Bank Tokyo	50,000,000	27,040,000	54%
14. Mitsubishi Bank, Tokyo	62,500,000	41,363,000	66.6%

It may be observed that the 34 p.c. exhibited by the Dresdner Bank is the minimum legal reserve fixed by the government in Germany. Without going into further details it is clear that the C.B.I. belongs to the group of

³⁴ *Europäische Banken* 1931 (Prague) pp. 33, 36, 39, 41, 63, 67, 84, 95, 98, 120, 122, 124.

the world's big banks which make it a point to observe 34 to 80 per cent as the proportion of reserve to paid-up capital. Bengali banks and bankers should certainly find this lesson from comparative bank-administration eminently instructive. None the less is it appropriate to note that certain big banks of the world have been observing a cent per cent equality between the reserve and the paid-up capital, and that in certain others the reserve is more than the paid-up capital.

Let us cite the following figures from British and French experiences of 1930 :

Name	Capital	Reserve	Percentage of Reserve to Capital
	£	£	
1. Midland Bank, London	14,248,012	14,248,012	100
2. Westminster Bank, London	9,320,157	9,320,157	100
3. National Provincial Bank, London	9,479,416	9,479,416	100
	Francs	Francs	
4. Credit Lyonnais, Lyons	408,000,000	800,000,000	196
5. Comptoir National d'Escompte de Paris	400,000,000	430,000,000	107.5

It is noteworthy that it is to this group of banks with reserves equalling or exceeding the paid-up capital that a large number of our "cottage banks," the Bengali loan offices, belong. Let us analyze the balance sheets of some of these credit institutions and we get the figures as follows :

35 In 1929 the Mitsui Bank of Japan observed 112% as the relation between reserve (67,600,000 yens) and paid up capital (60,000,000 yens).

Name and Year	Capital	Reserve	Percentage of Reserve to Capital
	Rs.	Rs.	
1. Jalpaiguri Banking (1928)	50,000	451,000	902
2. Rangpur Loan Office (1929)	47,000	278,801	591.5
3. Jessore Loan Co. (1929)	100,000	442,624	442
4. Comilla Union Bank (1929)	40,475	90,000	225
5. Bhawanipur Banking (1929)	125,000	265,551	212
6. Jessore Union Bank (1929)	100,000	166,202	166
7. North Bengal Bank (1928)	20,000	31,954	160

In 1928 and 1929 these seven loan offices observed the proportion of 160 to 902 p.c. as the reserve in relation to paid-up capital. The proportion, however, becomes lower when the averages of a large number of these Bengali cottage banks are considered. Thus, it is possible to assert for 1929 that 381 loan offices possessed altogether Rs. 8,071,570 as paid-up capital and that their combined reserves came up to Rs. 5,114,573.³⁶ The proportion was thus 63.3 p.c. which is more or less the same as that of the Banque de l'Union Parisienne, Lloyds Bank, Barclays Bank, etc. but higher than that of the Deutsche Bank, Commerz-und Privatbank, Berliner Handelsgesellschaft, Central Bank of India, Credito Italiano, Societe Generale, Banque Nationale de Credit and others.

The C. B. I. by Great Power and the Balkan Standards

The Central Bank of India's figures will acquire a fresh significance in the light of some Japanese big institutions. The paid-up capital and reserve of the Mitsui

³⁶ Report of the Bengal Provincial Banking Enquiry Committee 1929-30, vol. 1, p. 209.

Bank, the Sumitomo Bank and the Mitsubishi Bank are indicated below (for the year 1929):

Bank	Capital	Reserve
1. Mitsui	Yens 60,000,000	Yens 67,653,000
2. Sumitomo	„ 50,000,000	„ 27,040,000
3. Mitsubishi	„ 62,500,000	„ 41,363,000

About this time the yen was equivalent to nearly Re. 1-4-0. One understands that in capital and reserve,— during the year 1929,—

Mitsui = 6.1 C.B.I.

One of the biggest in Japan is thus more than 6 times as strong in capital as the biggest “Indian.” And in deposits.

Mitsui = 6.5 C.B.I.

Let us take one of the biggest Italian institutions. We find that in capital-cum-reserve

Banca Commerciale Italiana = 6.9 C.B.I. And in deposits B.C.I. = 8.6 C.B.I.

We understand, therefore, that although the Mitsui is almost equal to the Banca Commerciale Italiana in capital and reserve the latter commands more deposits than the former. Let us take now another big from Japan, the Mitsubishi, and compare it with the second biggest of Italy, the Credito Italiano. For 1929 we have the following figures in Rupees (@ Yen = Re. 1-4-0 and Re 1 = 7 lres, approximately in both cases):

	Capital-cum-reserve	Deposits
Mitsubishi:	Rs. 130,000,000	Rs. 750,000,000
Credito Italiano	Rs. 87,000,000	„ 753,000,000

While both the Mitsubishi and the Credito Italiano are bigger by all means than the Central Bank of India, the Italian institution is smaller than the Japanese in capital but almost equal to the latter in deposits. We may now take a third big institution from Italy as well as from Japan. The comparative situation is as follows:

	Capital-cum-reserve	Deposits
Banco di Roma :	Rs. 35,700,000	Rs. 293,000,000
Sumitomo	„ 96,200,000	„ 547,000,000

The Sumitomo is much bigger than the Banco di Roma both in capital and deposits. And of course both are much too high for the Central Bank of India.

These comparisons enable us to notice incidentally that so far as single institutions, especially of the highest category, are concerned, Japan and Italy are practically at a par. But how do they stand in comparison with Germany?

In capital-cum-reserve

Deutsche Bank und Disconto Gesellschaft

= 25.6 Central Bank of India

= 4.1 Mitsui

= 3.7 Banca Commerciale Italiana

And in deposits

Deutsche Bank und Disconto Gesellschaft

= 56.3 Central Bank of India

= 8.6 Mitsui

= 6.5 Banca Commerciale Italiana

The Deutsche Bank should therefore appear to be as bewilderingly big to the biggest Japanese and Italian institutions as these latter appear to the biggest "Indian" bank. Let us now take Great Britain. In capital power

Midland Bank

- = 13 Central Bank of India
- = 2.26 Mitsui
- = 2 Banca Commerciale
- = 0.54 Deutsche Bank und Disconto Gesellschaft.

And in deposits

Midland Bank

- = 40.3 Central Bank of India
- = 6.1 Mitsui
- = 4.6 Banca Commerciale Italiana
- = 0.71 Deutsche Bank und Disconto Gesellschaft.

It is clear that after amalgamation with the Disconto Gesellschaft the Deutsche Bank has attained an enviable position even from the angle of vision of the Midland Bank. It is only when the Midland be amalgamated with the Barclays, which is virtually its equal in every respect, that the combined resources would manage to exceed those of the Deutsche-Disconto.

Let us now try to size the Central Bank of India up by the French standard and see how the biggest bank of France stands in relation to some other big banks of the world.

In capital power

- Societe-Generale = 4 Central Bank of India
- = 0.65 Mitsui
- = 0.57 Banca Commerciale
- = 0.27 Midland Bank
- = 0.15 Deutsche Bank

And in deposits

Societe-Generale

= 10.3 Central Bank of India

= 1.5 Mitsui

= 1.1 Banca Commerciale Italiana

= 0.25 Midland Bank

= 0.18 Deutsche Bank

The Societe Generale is inferior to the two institutions of Japan and Italy in capital but slightly superior in deposits. On the whole it may be taken to be at a par with the Mitsui and the Banca Commerciale. This equation establishes automatically its relations in regard to the British and the German institutions considered here. It is almost a quarter of the Midland and about a sixth or seventh of the Deutsche Bank in capital. If we exclude the Credit Lyonnais which, although higher than the Societe Generale in capital and reserve, is yet equal to it in deposits, the second biggest from France, the Comptoir National d'Escompte, is naturally much inferior to all these big banks of Germany and England. Altogether, France is likely to be treated as second-grade in banking by the British and especially by the German standard of to-day.⁷⁸

Up till now we have been trying to understand the C.B.I in the light of the great powers, industrial and political. Let us now measure it by the Balkan standard.⁴⁰ We get the following equations :

38 For 1929 the following currency equivalents have been taken for calculations in round numbers: Re. 1=7 liras =9 francs (French) =1.50 Reichsmarks; £1=Rs. 13-8-0; Yen 1= Re. 1-4-0;

39 Re. 1=3 zloties .20 dinars =27 drachmae =50 lewas =60 leis.

In Capital		In Deposits	
C B I		C B I	
- 8	Powszechny Bank Związkowy of Warsaw	- 3 5	Powszechny Bank Związkowy
5 2	Bank Dyskontowy of * Warsaw	= 3 15	Bank Dyskontowy
3 2	Bank Handlowy of Warsaw	= 2 3	Bank Handlowy
4	Banca Comerciala Romana of Bucharest	- 2 3	Banca Comerciala Romana
3 9	Jugoslavian Bank of Agram	3	Jugoslavian Bank
- 15 3	Banque Bulgare de Com merce of Sofia	12 6	Banque Bulgare de Com merce
- 1 4	Powszechny Bank Kredy towy of Warsaw	1 26	Powszechny Bank Kredy towy
2 1	Jugoslavian Union Bank of Agram	- 1 9	Jugoslavian Union Bank
8 1	Banque Franco Belge Bal canique of Sofia	7 3	Banque Franco Belge
2 3	Banca de Credit Roman of Bucharest	2 6	Banca de Credit Roman
1 6	Banque Commerciale de Grece	3 6	Banque Commerciale de Grèce

It is clear that none of the biggest banks of Poland, Jugoslavia, Rumania, Bulgaria or Greece can stand comparison with the Central Bank of India. Of those "Balkan" institutions which can be regarded as the nearest in dimensions to the C.B.I. the Bank Kredytowy of Warsaw is under the control of France through the Banque des Pays de l' Europe Centrale of Paris, and the Banque Commerciale de Grece under that of England through the Commercial Bank of the Near East, while the Jugoslavian Union Bank of Agram is controlled not only by a great power, e.g. England, through the Anglo-International Bank but also by Austria, Hungary and others, as we have observed in a previous connection.

Deposits in Relation to Capital-cum-Reserve

Attention may likewise be called to another item of comparative bank management. The cottage banks of Bengal may be placed in the perspective of the banks of the world, large, medium and small, with the object of finding out if there be any policy underlying the relation between the deposits and the capital-cum-reserve. For the purpose of uniformity we are quoting the figures for 1929, although of course this year may not be equally good or bad for all the different institutions. The banks are being divided into four groups: (1) those in which the deposits are at least 15 times the capital and reserve combined, (2) those in which the deposits are between 10 and 15 times the capital and reserve combined, (3) those in which the deposits are between 5 and 10 times the capital and reserve combined, and (4) those in which the deposits are up to 5 times the capital and reserve combined.

Fiftyone items are being examined in the annexed schedule.

We have taken some of the more important banking institutions of several countries in Europe and Japan. Four of these countries are "great" powers in politics, namely, England, France, Germany and Italy, of whom two (namely England and Germany) are undoubtedly industrially great powers, and the others including Poland may be said to belong to the "Balkan complex." Besides, there are three big banks of Japan. How does the administration of the Bengali cottage-banks fare in comparison with that of the banks in these countries from Japan to Great Britain?

We notice that the first group contains banks such as belong to two powers which are "great" both politically and industrially as well as to Bengal. Nay, the Bengali loan offices top the list so far as the co-efficient of deposits in relation to capital-cum-reserve is concerned. Extremes have met,—Bengal rubbing shoulders with Britain and Germany in banking practice. The differences in the values at stake are immense. While the Bengali banks deal in barely a million or two Rupees, the Dresdner deals in two milliard Reichsmarks and the two London banks in nearly three hundred million pounds sterling. And yet in regard to the co-efficient in question they have observed the same principle. Should the high co-efficient (15 to 23 times) indicate, first, the presence of a high confidence of the people as depositors in the credit institutions of their neighbourhood, or secondly, the existence of a sound tact and experience of the bank managers and directors in regard to the investment of their funds, the men of North Bengal and Khulna will have to be treated as moving abreast of their colleagues "on the moon," the gentle-

men who are running the Dresdner and the Westminster etc.

The second group contains fourteen names, nine of which are world-renowned as the biggest in the banking sphere, namely, the Midland, the Lloyds, and the Barclays of England, the Commerz-und-Privat, the Deutsche-Disconto, and the Berliner of Germany, as well as the Banque Nationale de Credit, the Societe Generale and the Comptoir National of France. It is to be observed that none of the big banks of Italy are to be found in this group. But on the other hand, as peers of the world's big nine we have four pigmy institutions from Bengal, the Faridpur, the Rajsahi, the Jalpaiguri, and the Comilla, as well as the Zwaizkowy of Leland, which although somewhat substantial by the side of the Bengali institutions is nothing but a petty affair in the company of the Anglo-German-French banks. Even under diverse conditions of industrial and financial structure the Pole (under foreign guidance) and the Bengali (independently) have been observing the same principle of bank-management (in regard to deposits) as the three great pioneers of modern banking.

It is in the third group with co-efficient from 5 to 10 that the Italian banks first appear. Italy's big three, namely, the Credito Italiano, the Banco di Roma, and the Banca Commerciale Italiana, are all to be found here. France and Japan are each represented by three. Of the remaining thirteen institutions in this group eight come from Poland, Rumania, Jugoslava and Bulgaria; and Bengal is represented by five, namely, the Jessore, the Rangpur, the Bhawanipur, the Bengal Central and the Co-operative Hindusthan. The most notice-

able feature is furnished by the item that the co-efficient in regard to the total of 382 loan offices of Bengal, namely 5.0, is the same as that of 29 banks in Greece. * If the co-efficient 5 be taken to be low enough to be "safe" from the standpoint of depositors the general level of bank management may be regarded as marked by prudence and cautiousness; for not more than altogether nine loan offices have exceeded this limit. It is to be noted also that the Central Bank of India which for 1929 happens to have somewhat under 5, precisely 4.8, as the co-efficient, has as a rule very often had something above 5 and thus belongs in bank-administration to the same group as the average Bengali loan office and average Greek bank. But all the same, the premier "Indian" bank appears to be more modest and cautious than its Italian colleagues, namely, the *Commerciale* and the *Credito*. Statistically, it is not possible to describe Bengali or other Indian banking as rash or reckless in so far as deposit-seeking is concerned.

Altogether, it is clear that the deposit policy of Bengali loan offices makes them akin to the credit institutions of the most diverse groups of nations. It is very doubtful if on the basis of statistical experience one can hit upon any range of co-efficients as the ideally best for this or that bank or this or that group of economic regions. By the world-standard in bank-administration the managers and directors of Bengali cottage banks have been acquitting themselves fairly well. As a rule, they have succeeded in avoiding the mania of deposit-hunting beyond the limits of reasonable business expectancy. *

The Meaning of India's Banking-Equations

It has become clear in the foregoing examinations that in point of *per capita* bank wealth the Italian and Japanese co-efficients of to-day are much nearer to the Indian (and of course Bengali) co-efficients than are the Anglo-American or German (and French) co-efficients. Chronologically, also, the distance of India (and naturally of Bengal) from Italy and Japan in regard to banking progress is much shorter than that from the four other great powers. Among these four, again, the trio,—the U.S.A., Great Britain and Germany,—is too high for India from the standpoint of *per capita* developments in bank capitalism and bank management, and therefore too far ahead of India in point of time. Consequently, the American, British and German experiences of today can by no means stand as examples for emulation by Bengali bank promoters or directors. It is the methods and attainments of the Anglo-American-German banking world of some sixty or seventy years ago, that the Bengalis of to-day would be in a position to follow intelligently and assimilate. Similarly, it is the Japanese-Italian bank-coefficients of some thirty years ago which might without much difficulty be approached by the average Indian bank stalwarts of to-day. Perhaps the only countries of the world whose banking conditions are almost similar to those of Bengal and, generally speaking, of India are the Balkan states, Eastern Europe, Russia, some of the Latin-American republics and so on. Contemporary German experiments in the technique and organization of banking can furnish but inspiring stimulus to Bengali bank managers but hardly any prac-

tical hints except in solitary instances. It is only in Italy and Japan, if at all, among the great powers, or rather in Bulgaria and Poland that Bengalis and other Indians can find items of bank practice and theory such as may be immediately adopted in their own spheres, should it be necessary at times to learn something of foreign experience.⁴⁰

It is not possible for want of adequate statistical information to furnish such details as might satisfy the requirements of mathematically exact banking-equations between India and the other countries.⁴¹ But the following identities or parities are being established tentatively with a view to introduce some amount of precision in regard to the capitalistic developments of nations :

1. India (1932)=Germany (1860-1870)
2. India (1932)=Italy (1900-05)
=Japan (1900-05)
3. India (1932)=Balkan Complex (1925-32).

These three equations indicate three different groups of economic regions based on the grade of bank develop-

40 The latest figures relating to all American banks may be seen in *Federal Reserve Bulletin* for May 1932, p. 297; and to the joint-stock banks of England and Wales, Scotland and Ireland in the *Economist* (London) for May 14, 1932, Banking Supplement, pp. 18-19.

41 These equations between India on the one side and Germany, France and England on the other have been dealt with at some length on the basis of economic development along diverse fronts in Sarkar : "Die Entwicklung und weltwirtschaftliche Bedeutung des modernen Indien" in *Indien in der modernen Weltwirtschaft und Weltpolitik* (Stuttgart, 1931). For the railway-equations see the next chapter, where, from the nature of the case, the statistics will be found to be precise, exhaustive and comparable.

ment. We are helped also to visualize India's approximate chronological relations with the diverse groups. In regard to certain countries she is good two generations behind, in regard to certain others she is nearly one generation behind, while in regard to other countries there is hardly anything to choose between them and herself.

While introducing the concept of qualitative or chronological equations on a quantitative basis in order to find out which economic regions or which economic stages happen to be more or less alike in regard to banking we have to be particularly careful in regard to the interpretation of such phenomena, especially in so far as the economic and other efficiency of peoples is concerned. In the first place, it is obvious that almost invariably it is difficult to obtain strictly comparable data from the different regions or epochs. The credit institutions for which the figures for deposit are available in one instance may not be identical in scope and function with those for which the figures are available in another. The absence of uniformity leads naturally to errors in regard to the entire complex.

In the second place, wherever money is the category in terms of which these economic equalities are sought to be established the difficulties of obtaining genuine efficiency-equations should be considered to be enormous. The first difficulty is obvious. It consists in the diversity of currencies. They may indeed be brought down to a common denominator, namely, the Rupee, the franc, the £, the dollar or even the gold basis. But, then, the same amount of gold in two economic regions or epochs does not mean the same amount of economic goods and

services of same kind and degree of welfare or efficiency. Hence although there be a gold-equality there may not exist a *real* economic equation. This indeed is the fundamental problem of price-variations from region to region and from epoch to epoch. The deposit of, say, Rs. 10 per head of population in India and Japan or Italy or Poland may thus stand for altogether very varied economic values. And, therefore, supposing that the figures from the British and the Italian sides are strictly comparable, it would be extremely unscientific to hold that, man for man the English people is, say, 40·2 times as efficient, happy or even "rich" as the Italian people (pp. 119, 123).

The question of price-levels, standards of living and welfare, material and moral efficiency introduces a second complication which is none the less to be carefully watched while establishing the banking equations of nations on a monetary basis. Americans and Italians live on two different price and wage levels. So do the English and the Italians. This diversity of life-levels is indeed the very first objective fact that emerges on an international examination of the food, clothing, shelter and cultural requirements of the diverse peoples of the world. And this diversity is no less tremendous among the politically great powers than between them and the second class or third class nations. From this standpoint it is almost inconceivable that the national wealth of Italy would ever increase so much that the Italian people, man for man, may catch up to the American coefficient of Rs. 133 as bank deposits. The Italian deposits per head have been rising for some time and are likely also to rise in the future. But the chronological distance between the Italian and the

American or the Italian and the British coefficients is hardly ever likely to be covered even with Herculean efforts on the part of dozens of Mussolinis. It is quite possible therefore that the Italian people should always remain in terms of *per capita* bank deposit a long time, say, a generation or so backward in comparison with the U.S.A., and Britain or Germany, and yet this chronological backwardness may not mean very much in terms of economic and social as well as political and military efficiency, pragmatically considered. Italy may long continue to function as a "great power" although her banking and general industrial wealth remains all the time very low by the American-British or French-German standard.

All these considerations will have to weigh heavy while examining and evaluating the economic equations of Bengal (and other parts of India) as well as the Balkan complex, Russia and other countries where the standard of living is known to be low, and where wages, prices and other economic categories move on modest monetary scales. The equations of comparative industrialism or capitalism must not be invariably treated as identical with the equations of economic or other "efficiency." It is subject to the limitations of this fundamental distinction between economic equations and efficiency-equations that comparative studies will always have to be carried on in applied economics,—no matter whether the subject of discussion be railway, insurance or banking.

The Banker and Modern Economy in India

• The banking-equations, especially those bearing on chronological distance, possess a dynamic significance with reference to the problems of economic statesmanship

for India. We are forced to understand that banking as a category of "modern" economy is not yet well established in India. Like modern industry and commerce, modern banking also has but just commenced its career of conquest among the Bengalis and other Indians. It is, then, as a limb of the larger socio-economic transformation that we have to approach the problem of modern credit institutions. The full-fledged "banker" continues still to be as novel a person in the societal structure of Bengal and other parts of India as he was in France and Germany about 1848-1875 or in Italy and Japan about 1875-1900. And technically speaking, the banking business will have to pass through the same types of difficulties in our country as in those which a generation or two ago possessed more or less the same social institutions as ourselves but which to-day are marked by high co-efficients in banking, industry, commerce and what not.

Modern banking has with us as with all semi-industrialized and mediaevally-structured peoples its most formidable rival in the traditional money-lending business of the *mahajans* and *banias* and to a certain extent also of the *Zemindars* (landholders). Those who have fluid capital are used to invest it in personal loans to ryots, householders and other persons in need. Money-lending has in every country been for a long time one of the most profitable and economically very fruitful fields of investment. India is not an exception in this respect. It is by competing with this traditional investment method that the pioneers of modern industry and commerce, say, in Germany and France, have been able gradually to establish the new institutions of credit. India today finds herself in exactly

or more or less the same position, viz. that of new methods of investment in competition with the old. The fundamental problem with us to-day as with others in the past is the banker vs. the moneylender. This indeed is the universal sociology of modern banking. ,

Moneylending has to become less and less profitable and more and more risky in order that banking may become more and more popular and less and less novel. This is another way of saying that the rate of interest has to fall, say, from decade to decade, in order that monied classes may be tempted to think of giving up the old investment methods and taking interest in modern banking. To the extent that banking has made some headway, it is to be presumed that investors have found the rates of interest obtained by moneylending not so attractive as before. The fall in the rate of interest may be taken as an index to the growth of modern banking.

But all the same, moneylending as a profession is hardly likely to disappear. The moneylenders have discharged a very useful function in the economic organization of our country as of other countries. And as in other countries, in India also some of the prominent moneylenders of to-day are likely to grow into what are called "individual bankers" or "private bankers." They may not establish joint-stock or limited liability banks, nor perhaps would they often care to go into partnerships with their peers. But many of them will know how to modernize their tactics and function as integral parts of the "organized" money market. And in this regard, they bid fair to be looked upon as very honourable allies of "institutional" banking. Besides, it is very likely that some of the more adventurous and risky functions of the

banking business, namely, "industrial banking" strictly so called, are waiting to be tackled in India as elsewhere by these moneylenders as "individual bankers." (See the section on the morphology of bank-capitalism in France, *supra*. p. 116).

There is another feature of semi-medieval and half-modernized societies to which attention has now to be invited because it is in this that modern banking encounters a tremendous handicap to natural growth. The handicap which exists to-day in Indian business organization existed among the traders and artisans of other countries during the nineteenth century. We are speaking of the absence of bills and commercial papers. Our business people are not yet used to handling them in a regular manner or on a large scale. The "cash habit" or the "money order" or the "value payable" system continues still in India today to be as powerful as it was long ago in the other countries which have now considerably shaken it off. Unless our people learn to consider bills representing goods bought, sold, shipped,—in transit or in warehouse,—to be valuable instruments of exchange, it is extremely difficult for modern banking to grow.

The phrase "banking habit" does not mean simply depositing money in a credit institution for a short or a long term and learning to issue cheques on it for purposes of making payment. The most important item in the "banking habit" is to be found in the transactions in the bills, discounting of bills, etc. In other words, as soon as we get beyond the cheque habit, which is to be considered but a kindergarten aspect in modern credit, we are face to face with the proposition that "banking habit" implies fundamentally the "bill habit."

The origins of modern banking are associated in France and Germany as elsewhere with the gradual disappearance of the cash habit and its replacement by the bill habit. At the present stage of India's economic developments perhaps it should be possible to promote the bill discounting habit and to create a regular bill market here and there and everywhere through the efforts of the legislature as well as of private commercial houses, chambers of commerce, industrial associations etc. The simplest and easiest form of these bills will naturally be the documents representing goods shipped from bazar to bazar. The system will automatically involve the establishment of warehouses, goods offices and allied institutions as regular links. For the present the question of industrial bills is perhaps likely to be premature. And although agricultural bills might be considered to be risky, a move might be made through the co-operative societies in order to create and popularize instruments representing raw produce as well as landed properties.

In the interest of promoting the bill habit and establishing the discount market the government will have to create facilities for the speedy transfer of mortgages and mobilization of resources. Our peasants, artisans and merchants,—all can and have to be educated up to the handling of documents of modern credit. The law can help them to a certain extent. Individual firms of substantial importance can pioneer the movement to a great extent. And finally, the organized associations of merchants, industrialists and cultivators ought to carry on propaganda in behalf of modern methods of business organization.

The Railway Industry and Commerce of India in International Railway Statistics

The railways constitute the greatest single industry of India. From something above 633,000 in 1913-14 the employment roll of this transportation system has expanded to 741,860 in 1925-26, 772,563 in 1926-27 and a little above 800,000 in 1927-28. For 1926 the number was more than that of all the employees in the cotton (384, 082), jute (333, 659) and woollen (8,748) mills put together. In 1927-28 the amount of capital at charge on all the railway lines rose to Rs. 8,228,625,000 from Rs. 7,886,666,000 in 1926-27. A comparative estimate of the paid-up capital in a number of joint-stock enterprises in India will serve to place the railways in the proper financial perspective. In regard to 1926-27 the following figures may be offered :

1. Railways ¹	Rs. 7,886,666,000
2 306 cotton mills (excluding 34 mills for which figures are not available)	460,391,000

¹ At March, 1931, the total capital at charge on all railways including those under construction amounted to Rs. 8,698,100,000. See the *Report of the Railway Board on Indian Railways for 1930-31*, vol. I, (Calcutta 1932), p. 24.

3. 101 mining and quarrying companies (excluding gold mining)	299,094,000
4. 87 jute mills (excluding 6 mills for which figures are not available)	234,822,000
5. 233 coal mines	119,676,000
6. 24 woollen, silk and hemp mills	30,348,000

One can easily estimate the importance of railways in Indian economy from the above table. And one will be surprised when one gathers from the *Statistical Abstract* for British India (1917-1927) that the total paid-up capital of the 5,535 joint-stock companies registered in British India and Indian states (excluding private companies as well as joint-stock companies registered elsewhere than in India but working in British India) was Rs 2,764,318,000. And this made up but 35 p.c. of the total capital invested in railways during the same year.

Indeed, India is one of the greatest railway powers of the world. India's railway mileage is more extensive than that of Australia and even than that of the entire African continent. India possesses 45.7 p.c. of the total railways in Asia. And in absolute figures she is surpassed only by two countries, namely, Canada and the U.S.A. In the railway scale of nations as at 1925 India's place will be clear from the following classification in three groups according to the length of kilometres (1 km = 5/8 mile):

I

<i>Countries with route-mileage above 50,000 km</i>			
1. U.S.A.	...	...	403,785
2. Canada	...	...	64,523

3.	India	...	...	62,074
4.	Germany	...	...	58,156
5.	Russia in Europe	...	...	57,516
6.	France	• ...	...	53,561

II

Countries with route-mileage above 20,000 km

1.	Australia	...	...	48,457
2.	Argentina	...	...	36,436
3.	Great Britain	...	..	32,816
4.	Brazil	...	...	30,500
5.	Mexico	...	...	26,462
6.	Italy	..	...	21,100

III

Countries with route-mileage above 10,000 km

1.	Poland	...	...	19,486
2.	South Africa	...	...	17,682
3.	Japan	...	..	17,516
4.	Russia in Asia	...	...	16,979
5.	Sweden	...	..	15,715
6.	Spain	...	...	15,572
7.	Czechoslovakia	...	...	14,030
8.	China	...	...	12,020
9.	Rumania	...	..	11,000

These route-mileage figures² point naturally to India's enormous capacity for absorbing iron and steel, machinery, bridgework, electrical appliances, and other stores and materials. India as a consumer of such goods

² *Statistisches Jahrbuch für das deutsche Reich* 1928 (Berlin) pp. 67*-68.* See also the *Annuaire Statistique International* (Geneva), 1928, and Mortara : *Prospettive Economiche* (Milan 1929), pp. 412-421.

is more than five times as important in world-economy as China, at least 3·3 times as valuable as Japan and almost thrice as significant as Italy. The question of Indian railway stores looms, therefore, very large not only in the eyes of Indian manufacturers and traders but of foreign factories, exporters and commercial agents as well. The significance of Indian railways in world trade is great.

For instance, to the manufacturers of locomotives India is a big as well as expanding market. India's demand for railway engines is extensive. In 1925-26 India possessed more than 10,000 locomotives and this fact may enable the Indian railways to function as one of the most vital determining factors in the price and production of these goods. From the standpoint of engines in the world's railways we can classify the more substantial and prospective markets in the two following groups :

I

Countries with more than 10,000 locomotives

1. U.S.A.	...	...	63,619
2. Germany	...	...	26,474
3. Great Britain	...	...	24,045
4. France	..	...	20,877
5. Russia in Europe and in Asia	...	...	12,941
6. India	...	...	10,081

II

Countries with more than 3,000 locomotives

1. Canada	...	...	5,679
2. Italy	...	...	5,495
3. Poland	...	...	5,200
4. Belgium	...	...	4,656

5. Czechoslovakia	...	4,295
6. Argentina	... ..	3,940
7. Japan	... ..	3,907
8. Australia	... ..	3,887
9. Spain	... ..	3,337

Indian requirements in railway engines are heavy enough to render engineering works for their manufacture in India quite paying propositions. And this is a field of investment to which the eyes of Indian and other capitalists have not been sufficiently attracted.

Like the number of engines, the number of passenger carriages also is a valuable index to the very high place of Indian railways in the railway world. We can classify the more important railway-powers of 1925-26 into groups, as follows :

I

Countries with more than 20,000 Passenger Carriages

1. Germany	..	63,476
2. U.S.A.	... ..	57,000
3. Great Britain	..	51,000
4. France	..	35,370
5. Russia in Europe and Asia	...	29,378
6. India	...	20,449

II

Countries with more than 7,000 Passenger Carriages

1. Poland	... ..	11,635
2. Japan	... ..	10,308

3. Belgium	..	...	9,352
4. Italy	...	...	9,310
5. Spain	...	...	8,910
6. Czechoslovakia		...	8,674
7. Australia	...	...	7,701

In regard to passenger carriages Indian railways find themselves in the same sixth place in the world-economy as in regard to locomotives. And in both instances she is surpassed by the same five countries. It is to be observed that the relative position of these five railway-powers is identical in the engine and passenger carriages series except that at the top the U.S.A. and Germany change places.

The next important item in the fixed capital of railway industry, excluding the rails, sleepers, station equipment and telegraphic installations, is embodied in the goods carriages. And on this score also India's position is very high. For 1925-26 the more important countries are being grouped in the following two classes :

I

Countries with more than 200,000 Goods Carriages

1. U.S.A.	...	...	2,415,000
2. Great Britain	...	...	720,000
3. Germany	...	...	692,000
4. France	...	...	547,526
5. Russia in Europe and Asia	...	...	449,509
6. India	...	...	233,889
7. Canada	...	...	221,253

II

Countries with more than 50,000 Goods Carriages

1. Italy	• ...	... 159,129
2. Belgium	... ..	130,516
3. Poland	... •	126,087
4. Czechoslovakia	... ..	112,653
5. Australia	... ..	84,765
6. Argentina	... ..	76,745
7. Spain	... ..	70,499
8 Japan	... ..	59,607

Here, again, does India find herself after the same five countries as in regard to the other two items. India's demand for goods carriages as indeed for the rolling stock of all descriptions is powerful enough to influence the iron, steel and engineering industries of the world.⁴ One does not generally realize how high this consumption of locomotives, passenger and goods carriages and their spare parts amounts to every year. In 1926-27 the Indian railways purchased Rs. 47,900,000 worth of rolling stock, and in 1927-28 the money spent on the same class of goods amounted to Rs. 72,300,000. And of this huge amount only Rs. 4,900,000 could be spent in India on indigenous manufactures. In other words, not less than Rs. 67,400,000 worth of foreign rolling stock had to be imported from abroad. This one fact should be an eye-opener to the business men of India. Not only the manufacture of steel but the manufacture of iron and steel goods as well have been calling aloud for the establishment in

4 See the chapter on "New construction and engineering works" in *Report on Indian Railways*, vol I (1932), pp. 29-31.

India of a large number of iron and steel works as well as engineering concerns of diverse descriptions. It is, moreover, necessary to add that the rolling stock is but one of the many items which have to be bought by the railways every year. The value of India's consumption of varied railway materials may be indicated below :⁵

Year	Total materials purchased
1926-27 ..	Rs. 280,300,000
1927-28 ...	Rs. 358,700,000

Leaving aside the rolling stock as indicated above we have what is called the "permanent way," tools and stores, and electric plant as heavy items, each worth more than Rs. 20,000,000 per year. These items together with bridgework, workshop machinery, building and station material, fencing, engineer's plant, coal, coke, lime, ballast, etc. accounted for

Rs. 232,400,000	in 1926-27 and
Rs. 286,400,000	in 1927-28

During the latter year the imported railway materials were distributed among these items as follows :

1 Rolling Stock	...	Rs. 67,400,000
2 Permanent Way	...	Rs. 47,900,000
3 Tools and Stores	...	Rs. 39,700,000
4 Electric Plant	...	Rs. 23,600,000
5 Other Materials	...	Rs. 28,500,000
Total		Rs. 207,100,000

⁵ For a comparative estimate in reference to 1913-14 the figures for 1930-31 may be seen under different heads in the *Report* (1932), p. 24. See also p. 46 for the different items purchased.

and of Indian manufactures of all these classes the purchases amounted to Rs. 151,600,000 only.

The Indian Stores Department has been functioning since 1922 as a regular organ of the Government of India and of all Government-associated departments for all public purchases. It is well known that the Department has been specially instituted or rather reorganized with the object of purchasing Indian manufactures and other goods for Government and allied purposes. And yet nearly 57 p.c. of the orders for the railways had to be placed abroad in 1927-28. Evidently there is much room for the promoters of *swadeshi* industry in India to follow the new possibilities of markets for iron, steel, engineering and electrical goods that lie at their very feet. The railways have in the past served to promote the industrialization of India in diverse ways. They are continuing to urge for further industrialization. It is time for the investors to respond to the incessant call of railways.

In 1928 there were some 68 different railways in British India and Indian states and they together possessed a route-mileage of 39,711.58 miles. This mileage was distributed according to gauge in the following manner :

1 Broad (5 feet 6 inches)	...	19,584.65 miles
2 Metre (3 feet 3½ inches)	...	16,254.63 „
3 Narrow (2 feet 6 inches or 2 feet)	...	3,872.27 „
TOTAL		39,711.58

The route-mileage includes "double line or more" which accounted for 3,555.49 miles. For single

line the mileage for the year is therefore to be measured by 36,156·09 miles. On account of the new railway policy the mileage has been expanding every year.

The Indian railways are for the purposes of administration generally classified in three groups. To Class I belong all the broad gauges, 13,990 miles (87 p.c.) of the metre gauges, and a substantial portion of the narrow gauges. Class II takes in most of the remainder of the metre gauges and some of the narrow gauges. In the third class fall mostly the narrow gauges but a part also of the metre gauges. For 1928 the classification would show the following results :

Class I	...	35,586·81 miles of route			
„ II	...	2,953·49	„	„	„
„ III	...	1,171·28	„	„	„

The first class constitutes thus, so far as mileage is concerned, the real backbone of the Indian railway system. And this would appear also from the amount of capital invested. For the year 1926-27 we have the following figures relating to the number of companies in each class as well as the total amounts of capital at charge in each :⁶

Class	No. of companies			Capital	
First	...	15	...	Rs.	7,580,289,000
Second	...	16	...	„	210,982,000
Third	...	37	...	„	49,873,000
		<hr/>			
TOTAL	...	68		Rs.	7,886,666,000

6 At 1931 the figures would be as follows : first, 14; second, 14; third, 23. See *Report for 1930-31* (Calcutta 1932), vol. I, pp. 85-89.

The total includes some small sums not indicated in the three categories.

The fifteen first class railway companies of British India and the Indian states are enumerated below in the chronological order of their commencement of traffic operations :

Date	Name
1853	Great Indian Peninsula Railway
1854	East Indian Railway
1856	Madras Railway (later known as Madras and Southern Mahratta Railway)
1860	South Indian Railway
1860	Bombay, Baroda and Central India Railway
1861	Sindh, Punjab and Delhi Railway (later known as North Western Railway)
1862	Eastern Bengal Railway
1867	Oudh and Rohilkhand Railway
1874	Nizam's Guaranteed Railway
1875	Bengal and North-western Railway
1877	Burma Railways
1880	Bengal Nagpur Railway
1882	Jodhpur State Railway
1884	Rohilkhand and Kumaon Railway
1895	Assam Bengal Railway

In the order of their route-mileage importance these fifteen first class railways have changed their relative position from time to time. In 1925 the E.I.R. was amalgamated with the C.R.R. and a considerable slice of the E.I.R. (namely the Naini-Jubbulpore section) was transferred to the G.I.P.R. The amount of capital at

charge on each line has likewise varied in the course of its history. The following schedule indicates the present position (1927-28) of these lines in mileage order with additional indication as to the capital outlay :

	Line	Route Miles		Capital
1	N.W.R. ...	6,514	Rs.	1,429,564,000
2	E.I.R. & O.R.R.	4,011	..	1,417,042,000
3	B.B.C.I.R. ...	3,831	„	765,166,000
4	G.I.P.R. ...	3,656	„	1,174,616,000
5	B.N.R. .	3,412	„	705,103,000
6	M.S.M.R. ...	3,065	„	599,103,000
7	B.N.W.R.	2,077	„	204,435,000
8	S.I.R. ...	2,068	„	365,652,000
9	B.R. ...	1,908	„	313,512,000
10	E.B.R. ...	1,740	„	480,393,000
11	A.B.R. ..	1,088	„	231,376,000
12	Nizam ...	1,014	„	132,663,000
13	Jodhpur ...	866.82	„	441,998,000
14	R.K.R. ...	570.78	„	42,540,000

Of the 14 Class I railways of to-day two, namely, the Nizam and Jodhpur belong to the Indian states. The railways passing through Indian states cover altogether 5,797 route-miles. Some of the more important railways of Indian states, including the two in the First Class, are being described below chronologically with specifications as to their rank and class in 1927 :

Date of commencement of operations	Name	Class	Route Miles
1873	Gaekwar's Baroda State Railway	... II	341·17
1874	Nizam	... I	1014·90
1880	Bhavnagar State	... II	283·99
1881	Gondal	... II	189·67
1882	Jodhpur	... I	866·82
1888	Junagad	... II	148 10
1889	Porbandar	... III	41 29
1891	Bikaner	... II	619·15
1895	Udaipur-Chitorgarh	... III	67·30
1897	Jamnagar-Dwarka	... II	157·35
1899	Gwalior Light	... III	253 20
1899	Mysore	... II	285·46
1905	Cutch	... III	36 78

Neither for British India nor for Indian states is there a uniform system of administration in railways. The administrative diversity has arisen in no small part from the very diversity in the methods of financing railway construction. If we exclude the "experimental" lines of 33 miles at Bombay, 120 miles at Calcutta, and 39 miles at Madras constructed in 1853, 1854 and 1856 respectively, it is possible to exhibit four or five different periods of railway construction each with its characteristic features of finance.⁷ The first period of railway finance is to be found between 1859 and 1870 when 5,000 miles of railway were distributed by the Government of India between eight companies on a guarantee basis. The con-

⁷ *Report*, vol. I, pp. 90-94.

tract ran for twenty-five years in each case. The companies were guaranteed to the extent of $4\frac{1}{2}$ -5 p.c. of their capital (some £52,000,000). Surplus profits were to be shared between the Government and the companies. The right to purchase after the period of contract was retained by the Government. The "guarantee" system had a demoralizing effect on the companies leading to extravagance on their part and involved heavy losses and financial deficits, the Government resolved to embark upon. And naturally, the Government interfered in the affairs of the companies in the most trivial details. The first epoch of railway policy in India exhibits thus the features of a peculiar type of "nationalization" which implies state intervention in season and out of season combined with "private" company finance, construction and management. (Total mileage open at 1870: 4,771).

In order to be relieved of the inconveniences of this dual system or dyarchy and especially in order to avoid financial deficits the Government resolved to embark upon the direct construction of railways under its own auspices. The period from 1870 to 1880 may be described as the epoch of 100 p.c. nationalization in railway policy. The railways were not only financed and constructed, i.e., owned but also "managed" by the state. But the public finances of the country were not plentiful and proved to be inadequate for the exigencies of railway expansion. To add to the financial troubles the depreciation of silver in the world market led to the fall of the Indian currency. The Government was, therefore, put to extra losses on account of the payments to be made to the railway companies according to the terms of the guarantee which had been fixed on a higher exchange basis.

It was not found financially convenient any longer to continue the policy of state ownership and management. But in the interest of economy the Government began to buy the railways of the old guarantee system (1859-70), according as the contracts lapsed. The management, however, was leased to the companies in certain instances but in others was directly taken over by itself. Some 4,250 miles were opened for traffic during this period. (Total mileage open at 1880 : 8,996).

The third period (1880-1890) abolished the state ownership principle and went back to the old guarantee system. Several private companies were invited to construct as well as manage railways. The terms were a bit easier for the Government than under the first system. And as on that occasion during this epoch also the Government reserved to itself the right to buy the companies out at the end of the contract period. Some 4,000 miles were given away under this system. (Total mileage open at 1890 : 16,404).

By 1890 the foundations of the trunk lines were already laid and the railway developments had become important enough to call for the enactment of the Indian Railways Act. Then began the fourth period in railway policy which may be said to have continued for a whole generation. This has special reference to feeder lines and with regard to this the Government introduced a new system of financing. Neither was the nationalization principle revived nor the twice-tried guarantee system continued. Private companies were by all means encouraged to undertake the construction and management. The system was introduced of offering a rebate to the companies on the gross

earning of the traffic which the main line interchanged with the branches. Financially, the rebates system proved to be almost as burdensome to the Government as the guarantee system although the rates varied generally between 3 and $3\frac{1}{2}$ per cent of the capital outlay. It is, besides, important to add that during this period, especially after 1896, the Government deprived the guaranteed companies of the right to borrow capital in India. All borrowing in the interest of these private railways has been done exclusively by the Government since then. (Total mileage open at 1920: 36,735).

The fifth period may be said to have commenced with the institution of the Indian Railways Committee presided over by Acworth (1920-1). The problem of this period is as during the fourth to enrich the main lines with feeders and branches. And for this epoch of railway expansion the policy consists in the raising of loans by the Government of India. The rebates system has been abolished. But the Central Government is prepared to sanction schemes such as are guaranteed by provincial governments, district boards or other local authorities.

It was during the second epoch (1870-80) of railway policy in British India, i.e. during the period of state ownership or nationalization in construction as well as management that the Indian states first began to take interest in railway. The railways that have been constructed there have in most cases been financed by their governments. The railways are thus invariably "owned" by the states. But in regard to management there is much diversity as in British India.

The chronological survey of railway policies brings

out four financial categories—guarantee, state-ownership, rebates and government loans—which have controlled the fortunes of railway construction in India. With the exception of state-ownership all the other categories have reference to private companies. One might expect, therefore, two very simple systems of railway management—one, that of management by the Government of India or by Indian States, and the other, that of management by companies. Such a scheme of railway administration might be indicated as follows :

1. Railways owned and managed by the Government, i.e., thoroughly nationalized, “publicly owned” or state lines.

2. Railways owned and managed by the companies, i.e., private lines.

But in actuality this simple dichotomy has been replaced by a heterogeneity which, while embracing in its sweep these two poles of railway management, has a place for transition between the two consisting in the intermingling of private and public systems.

We may take the figures for 1926-27. Here we have the condition two years after the amalgamation of the E.I.R. with the O.R.R. as well as the transfer of the amalgamated lines and the G.I.P.R. from company to public management. The situation is embodied in the following scheme :

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Line	Route miles	Capital Rs
I Government of India Lines		
1 Managed by the Government	13,549	4,144,940,000
2 Managed by the Companies	14,315	2 820,231,000
II Branch Line Companies		
(a) under "guarantee"		
i managed by branch line	178	11,803,000
ii managed by main line	115	8,329,000
(b) under "rebate" managed by the main line	2,067	141,316,000
(c) under "rebate" and "guarantee"	167	18,547 000
III Companies' lines		
1 Subsidized		
(a) by Government of India	1,984	165,447,000
(b) by Local Governments	137	19,052,000
(c) by District Boards	306	15,587 000
2 Guaranteed by Indian States	754	98,948,000
3 Unassisted	70	3,887,000
IV District Board Lines	271	15,515 000
V Indian State Lines		
1 managed by Indian States	3,153	189,857,000
2 managed by the main line	1,850	143 592,000
VI Lines in Foreign Territory managed by British Indian Rly Company	74	21,469 000
VII Miscellaneous	19	22,624,000
	<hr/> 39,049	<hr/> 7,886,646 000

The total capital includes some 45 million Rupees not shown in the above table.

From the foregoing figures it is clear that so far as "ownership" is concerned the lion's share belongs to the "public" and that in regard to "management" it is preponderantly "private."

For 1927-28 the relations between the public (i.e. Government) and the companies in regard to ownership and management give the following picture (in miles) :

Parties		Ownership	Management
Government	...	28,426 71 p.c.	15,867 40 p.c.
Companies	...	11,285 29 p.c.	23,844 60 p.c.
		<hr/>	<hr/>
Total		39,711 100 p.c.	39,711 100 p.c.

The total capital at charge on the Government-owned railways was Rs. 7,228,781,000 out of Rs. 8,228,625,000, the total capital invested in all railways in India.

The proportional relations have been changing every year because of the annual opening of several hundred new miles to traffic. The Government's share in ownership has been steadily on the increase as well as in management. In 1929 the Burma Railways Co. were taken over from the company by the Government of India. The proposal to transfer the Assam-Bengal Railways from the company to state management in the near future will likewise further extend the area of Government administration in the Indian railway world.

It need be recalled that public ownership and public management of railways are as old in India as 1870-80 and that public ownership was extended to six of the eight companies of the old guarantee system (1859-70) as soon as the contracts expired. Thus the Government of India purchased the E.I.R. in 1880, the E.B.R. in 1884, the N.W.R. in 1885-86, the O.R.R. in 1886, the S.I.R. in 1890 and the G.I.P.R. in 1900.

In the railway experience of mankind Great Britain

and the United States of America represent the private system exclusively, while at the other pole are countries like Bulgaria, Lithuania and New Zealand in which every kilometre of railway line is state-owned and state-managed. If we exclude these two extreme types we find that the world is fundamentally pluralistic or rather dualistic in its railway organization. The mixed system prevails in virtually every country where there is a railway. In certain countries the two systems are almost equally represented, although the bias on one side or other is none the less noticeable. The examples of Portugal and Switzerland are instructive in this regard. Take the figures for 1927, and we have the following scheme in kilometres :

Country	State	Private
Portugal	1,336	1,897
Switzerland	2,942	2,379

Then, we have a second group of countries in which, as in India, the state-system is the pronounced feature. The following table describes this group for 1927 in kilometres :

Country	State	Private
Chili	5,526	2,951
Mexico	15,404	5,237
South Africa	17,811	554
Australia	41,075	1,557
Norway	3,259	368
Italy	16,569	4,929
Czechoslovakia	13,356	253
Austria	5,837	847

Country	State	Private
Germany	53,623	4,559
Japan	13,387	5,372
India	• 45,749	18,163

Finally, we have a third group in which the private system is much more extensive than the state, as indicated below :

Country	State	Private
France	1,185	32,097
Sweden	5,315	9,793
Argentina	7,078	29,683

It is interesting to observe that Norway does not agree with Sweden. Nor do France and Germany belong to the same group. And it is clear also that the preponderance of the state-ownership (and/or state-management) is well distributed throughout the different nooks and corners of the world. Geographically, ethnologically or politically there is hardly anything in common between the countries where this relative proportion between state and private systems obtains.

India happens to find herself in this company and it is a part of the political or economic philosophy of her nationalists to push forward this trend to its furthest logical consequence. It is questionable, however, if pure theory can demonstrate the exclusive virtues of the one or the other system. But should India happen to possess more political freedom and thus succeed in removing the unnecessarily high-salaried foreigners from the different public services including railway administration there is a possibility of achieving tremendous economy in the public

finances as well as in railway finance. Under those conditions of effective Indianization, state-management of railways is likely to be less costly than it has been up till now. But otherwise the railway experience of India during the last three quarters of a century should tend to leave the question open as to the relative merits of the two systems so far as efficiency and economy are concerned.

It is well known, further, that for forty years down to 1899 the Indian railways were annual deficit charges on the public revenues. For these deficits the private railways were as much responsible as the state. Since 1899 the railways have been every year, excepting during 1908-09 and 1920-21, making quite mentionable profits. And since the separation of railway finance from the general finances in 1924, the Railway Board has been contributing some Rs. 60,000,000 p.a. to the Government. An analysis of the earnings of the first class railway companies, both private and state-managed, would furnish some interesting data bearing on this recent trend. Let us take the following table of a general character for the year 1927-28.

	All Railways	State owned Railways
Total capital at charge	Rs. 8,228,625,000	Rs. 7,228,781,000
Total route mileage	35,711.58	28,426
Net earnings on capital outlay	5.58	5.40

The figures indicate that the net earnings on all railways combined are a little bit higher than those on state-owned railways. But for general purposes they may be taken to be on the same level.

We shall now place the figures of the 14 companies in the alphabetical order and study their growth from 1921

to 1927, first, in regard to the "working expenses" in percentage of gross earnings, and secondly, in regard to "net earnings" in percentage of capital at charge, as follows :

Lines	Working Expenses in p.c. of Gross Earnings		Net Earnings in p.c. of Capital	
	1921	1927	1921	1927
A.B.R.	93·75	53·67	0·31	4·11
B.N.W.R.	44·18	38·66	8·90	11·12
B.N.R.	71·45	57·76	3·67	5·12
B.B.C.I.R.	75·96	62·84	4·70	6·12
Burma R.	69·76	61·25	4·72	6·08
E.B.R.	85·06	65·32	1·58	5·25
E.J.R.	62·81	61·14	5·52	5·65
G.I.P.R.	91·02	70·40	1·31	3·99
Jodhpur R.	70·56	64·08	6·24	7·24
M.S.M.R.	69·98	54·90	4·63	6·67
Nizam R.	46·73	36·68	8·67	9·11
N.W.R.	92·29	69·73	0·97	4·02
R.K.R.	55·85	49·31	7·19	7·88
S.I.R.	72·27	54·17	5·16	8·13
Fourteen Rlys.	76·36	61·88	3·38	5·47

The table says that on all the fourteen railways combined the expenses in percentage of gross earnings have gone down from 76·36 p.c. to 61·88 p.c., and that the net earnings also have increased during the same period from 3·38 p.c. of total capital to 5·47 p.c. For 1927-28 this last figure is 5·58 p.c. as we have noted previously. The trend in the increase of net earnings is to be observed. If we take the individual railways we find that this general trend is repeated in each. Every one of the

companies from the A.B.R. down to the S.I.R. has in its record of the years 1921-27 the story of diminution in the rate of expenses and increase in the rate of earnings, and of course some of these are state-managed and others company-managed. In other words, the actual statistics of the financial working of the Indian railways does not point categorically to any differences between the two systems of management. Let us scrutinize the figures more minutely. B.N.W.R. and Nizam R. are the two lines that exhibit not only the lowest figures in the expenses columns but the highest figures as well in the earnings columns. The first is a thoroughly private company and the second a guaranteed one. It is, again, in the company-managed railways like the A.B.R. and the S.I.R. that the diminution in the percentage of working expenses from 93·75 to 53·76 and 72·27 to 54·17 is specially noticeable, although of course all the lines have more or less the same kind of achievement to their credit in this regard. It is not possible to claim anything extraordinary in behalf of the state railways. The rates of earnings, again, on the state railways, 3·99 p.c. (G.I.P.R.), 5·25 p.c. (E.B.R.), 5·65 p.c. (E.I.R., etc., for the year 1927 do not happen to be much above the lowest in the schedule. Indeed, the railways which exhibit rates considerably above the general average (namely, 5·47 p.c.) are, strangely enough, all private companies. Altogether, then, in regard to the controversy, state *vs.* company in railway management, Indian statistics, so far as they go, do not favour the statalists in any special manner. Socialism as embodied in the nationalization of railways does

not by itself lead to economy or efficiency which indeed can be introduced even under the system of "freedom" or private enterprise, as it has been in India also in recent years.

In India the entire problem is associated with some special considerations such as are likely to be ignored by students who take interest in pure theory or pure statistics.⁹ All the companies in India are foreign by nationality as well as by domicile. The category, company management, means, therefore, not only "private" or "free" administration as elsewhere but at the same time foreign domination and perhaps foreign "exploitation" in the sinister sense. Emancipation from company management and, of course, from company ownership, is in our nationalist estimation not so much a question of "individualism," freedom of enterprise, private initiative, *laissez faire* etc. vs. public ownership, Government intervention, state socialism or the like as a most solid plank in the elimination of foreign hegemony and dictatorship from the Indian economic sphere. Objective students of comparative railway economics and statistics might argue that the state in India is no less foreign, at any rate, to a considerable extent. But they would thereby ignore the fact that the railway profits of the state, although alien in certain respects, are bound to be but feeders of the general revenues of the country itself, a possibility such as can never be realized in the case of alien companies. Besides, there is a chance of

9 See Appendix B in the *Report of the Railway Board for 1930-31*, vol. I, pp. 90-94. For the financial position of state lines managed by state or by companies, see pp. 16-18.

the state in India becoming more and more Indian in personnel and policy, and the possibility of making the Government inch by inch amenable to the fundamental wishes and interests of the people may not be very remote. It is these considerations of political sovereignty and democracy as well as popular control that lie at the bottom of the kind of state-socialism that is being championed by Indian nationalists not only in regard to railway but in regard to other economic institutions, say, the oft-discussed Reserve Bank of India.

The ownership element in nationalization was, as we have noted above, well established in India during the fourth quarter of the last century. But the management aspect of nationalization was not prominent in those days. It is with the beginning of the second quarter of the present century that this factor has begun to acquire a special prominence in Indian railway organization. (State-managed railways at 1930: N.W.R., E.B.R., O.R.R. + E.I.R., G.I.P.R., B.R.).

The story of railway nationalization in India is, however, not exhausted with this account of public ownership and public management. It has to be remembered that the Government of India has the right to "control" the construction and managements of all railways, no matter how they are financed and operated. No company-owned and company-managed line is outside the scope of state intervention. Officials of the Government of India possess a statutory place on the boards of the companies. In this sense a purely private company can hardly be said to exist in the Indian system.

The Government's legal relations in regard to the railways may then be grouped under three different

classes : (1) ownership, (2) management and (3) statutory control of private companies in regard to financing, construction as well as management including expenditure. Previously, all these functions used to be taken care of by the Public Works Department of the Government of India through its Railway Branch.¹⁰ In 1905 a special organization known as the Railway Board was instituted as a limb of the Department of Commerce and Industry. And this has been reorganized in 1924 with enlarged functions and responsibilities as the central authority in railway matters. The Board consists of a chief commissioner who is not bound by the votes of the other members, a financial commissioner a mechanical engineer as technical expert, and a member for administration, personal and technique. The Railway Board is assisted by five directors, one for each of the following items : civil engineering, mechanical engineering, traffic, finance and establishments. It is to the Railway Board as thus constituted that the Agent of each railway line is responsible.

It is interesting to observe that although the Indian railways have been getting more and more statalized in all respects, they have been, curiously enough, at the same time acquiring or rather developing their character more and more as "commercial" or moneymaking concerns. It is in keeping with this commercial idea of railways as business undertakings that a Central Publicity Bureau has been established at Delhi in 1928.¹¹ Cinema films are being produced and demonstration

¹⁰ See the appendix on the "organisation for Government control" in the *Report* (1932), vol. I, pp. 95-100

¹¹ The latest account of publicity work may be seen in the *Report* (1932), vol. I, pp. 80-84.

trains are being run for propaganda work not only in regard to railways, but in regard to health, sanitation, "safety first," agricultural and other economic possibilities as well. Bureaus for Indian railways have been opened in London (1928) and New York (1929). Advertisements for travel in India are being published by the publicity bureau in the European railway stations, for instance, in Switzerland. And a monthly journal known as the *Indian State Railways Magazine* has been started in 1927.

But the most important feature in the establishment of the commercial character of the Indian railways in recent times is the separation¹² of railway finance from the general finances of the Government of India in a manner similar to that prevailing in France, Italy, Japan and in Germany under the Dawes Plan. Railway budget was always but an item in the budget of the Central Government, and as such failed to do justice to the growing, varied and elastic requirements of a vast commercial enterprise. And, on the other hand, the railway estimates used to lead to violent fluctuations in the general budget. A "convention" was, therefore, agreed to between the Legislative Assembly and the Government of India in 1924 in regard to this separation of the two budgets. An important financial condition was stipulated to the effect that a fixed contribution should be made to the general finances of the central government by the railway authorities. Down to 1929 the central finances obtained from the Railway Board the total

¹² The resolution adopted by the Legislative Assembly may be seen at p. 101 of the *Report* (1932), vol. I

contribution of Rs. 300,000,000 at the rate of some Rs. 60,000,000 p.a. (cf. Rs. 57,357,000 in 1930-31).

The Railway Board has since then been functioning in a thoroughly unshackled manner so far as finances are concerned. But it has to be observed that its statutory autocracy^a has been to a certain extent sought to be curtailed by the simultaneous establishment of the Standing Finance Committee of Railways. This is a body of twelve members, of whom eleven are chosen by the Indian Legislative Assembly from among themselves. The twelfth is the chairman. He is likewise a member of the same assembly, but a government official and nominated by the Government. And it is to this body of twelve that the Railway Board has to submit the estimate of railway expenditures and the demand for grants. It has belonged to the functions of the Standing Finance Committee during the last few years to meet several times a year at Bombay, Calcutta, Madras, Delhi and other places. And in order that the estimate and the demand of the Railway Board could be placed before the Legislative Assembly this body of twelve has had occasion to sanction new appointments, construction of lines and bridges, rolling stock programmes, remodelling of workshops and stations, electrification schemes and what not.

Two more institutions have to be mentioned in this connection as having served to bring the railway administration under some sort of popular or democratic influence. The first are the Local Advisory Committees representing the public on all Government-owned lines. They were first established in 1923-24. In all different centres taken together these committees held as many as 84 meetings in 1925-26, 92 in 1926-27, 108 in 1927-28,

and 131 in 1930-31. Their topics for discussion embraced questions like the opening of new stations, provision of lavatories in servants' compartments, arrangements in connection with fairs, refreshments and drinking water facilities, overcrowding in trains, reduction in fares, and so on.

The other institution that has been injecting democracy into railways, perhaps in homoeopathic doses, is the Rates Advisory Committee, first established in 1926. It is only in connection with rates that this committee examines complaints from the customers of the railway companies. During the last few years' cases of rates bearing on the following subjects have been heard by this body: 1. undue preference, 2. unreasonable rates. 3. terminals, 4. packing, and 5. facilities to be provided by the companies in accordance with the Indian Railways Act of 1890.

The Indian railways may now be placed in the perspective of the railway-world from another view-point, namely, that of traffic. That India is a great railway-power—one of the very greatest in this field—would appear from the international statistics of passengers and goods carried by the world's railways every year. First, then, as regards the number of passengers who may be said to have travelled at least one kilometre in 1927, the leading countries of the world may be placed in the following order in two different groups:

I

*Countries with more than 20,000,000,000
passenger-Kilometres*

1. U.S.A.	...	57,410,000,000	(1926)
2. Germany	...	46,623,000,000	
3. India	..	34,931,000,000	
4. France	...	26,281,000,000	
5. Russia in Europe and Asia	...	21,979,000,000	
6. Japan	...	20,604,000,000	

II

*Countries with more than 3,000,000,000
passenger-Kilometres .*

1. Czechoslovakia	.	9,264,000,000	
2. Poland	...	6,307,000,000	
3. Australia	...	5,785,000,000	
4. Belgium	...	5,780,000,000	
5. Canada	...	4,911,000,000	
6. Ceylon	...	4,447,000,000	
7. Austria	...	3,722,000,000	
8. Great Britain	...	3,170,000,000	
9. Rumania	...	3,151,000,000	
10. Switzerland	...	3,025,000,000	

India finds herself surpassed by only two countries, U.S.A. and Germany, in the number of railway travellers.¹⁴ And this points naturally to the enormous importance of Indian railways in business organization as regards the handling of population movements and

earnings of traffic. India's high position in the traffic of goods is equally manifest in the international statistics. The leading countries may be classified in the two following groups on the basis of goods that may be said to have been carried at least one kilometre by the railways during the year 1927 :

I

*Countries with more than 30,000,000,000
Ton-Kilometres*

1. U.S.A	...	631,700,000,000	
2. Russia in Europe and Asia	...	81,650,000,000	
3. Germany	...	71,917,000,000	
4. Canada	...	55,893,000,000	(1926)
5. France	...	44,075,000,000	(1926)
6. India	...	35,813,000,000	
7. Great Britain	..	30,818,000,000	

II

*Countries with more than 4,000,000,000
Ton-Kilometres*

1. Poland	...	19,011,000,000	
2. Italy	...	13,183,000,000	
3. Japan	..	12,455,000,000	
4. Belgium	...	7,870,000,000	
5. South Africa	...	6,948,000,000	
6. Australia	...	5,401,000,000	
7. Rumania	...	4,693,000,000	

In the comparative statistics of ton-kilometres, then, Indian railways exhibit a high carrying capacity. The amount of traffic in goods that takes place on the Indian

railways is nearly three times that on the Japanese and more than twice and a half that on the Italian. Indian commerce is evidently a heavy item in the world's trade.

We have noticed that India is invariably in the sixth place by the world-standard of railways. Only once (in regard to passenger-kilometres) have we found her position in third place. If, then, for the purposes of comparative railway statistics India were to be accorded a position among the first six powers of the world, she would perhaps be regarded as only receiving her due. And this would imply that industrially and commercially and indeed from the general standpoint of industrialization and technical developments India was perhaps already one of the greatest powers of the world.

A statement such as this would, however, involve a pure fallacy inasmuch as it would indicate an absence of orientation to the fundamental considerations of comparative statistics and international comparison in industrialism. In regard to groups of human beings, communities, classes or nations, the absolute figures are indeed important as conveying the sense of their combined resources and power. But the groups, classes or nations are of diverse dimensions in the number of individuals and the territorial area inhabited. It is very important, therefore, for the purposes of comparison between nations as regards real efficiency, wealth, happiness, culture etc. to find out the amount of these combined resources and power that each individual can command for himself or that is available in each square mile of territory. In other words, nothing can be more misleading than absolute figures in the comparative estimate of nations as regards economic, military or cultural power.

On each occasion it would be necessary to ascertain the values *per capita* of population as well as per square mile of country. It is on these averages, individualistic values, that comparative statistics may serve to place the different nations of the world in the proper perspective in regard to one another.

All the international statistics furnished up till now bearing on route-mileage, locomotives, ton-kilometres etc. indicate undoubtedly the enormous magnitude of railway achievements as well as industrial and commercial turnovers in India. But in order to evaluate the real worth of Indian railways by the world-standard and place them exactly in the world-economy we have to determine the average,—per head and per square mile,—values of these items among the Indian people.

Let us then proceed to classify the countries of the world according to the number of railway miles or kilometres (1 km = 5/8 m) available per 10,000 inhabitants. On the basis of "railway-density" thus ascertained we may make the three following groups for 1925 :

I

Countries with more than 10 km per 10,000 inhabitants

1.	Canada	...	...	68·9
2.	Argentina	...	...	38·4
3.	U.S.A.	...	...	38·0
4.	Sweden	...	...	25·6
5.	Chili	...	...	23·1
6.	Mexico	...	...	18·1
7.	Switzerland	...	...	14·7
8.	Belgium	...	...	14·2

9.	Norway	...	...	13.1
10.	France	...	...	12.0
11.	Hungary	...	...	11.5
12.	Austria	...	...	10.8
13.	Czechoslovakia	...	...	10.3

II

Countries with more than 5 km per 10,000 inhabitants

1.	Germany	...	...	9.2
2.	Brazil	...	...	9.0
3.	Great Britain	...	...	7.4
4.	Poland	...	...	7.1
5.	Spain	...	...	7.1
6.	Rumania	...	...	6.8
7.	Russia in Asia	...	...	5.5
8.	Italy	...	...	5.4
9.	Russia in Europe	...	...	5.0

III

Countries with less than 5 km per 10,000 inhabitants

1.	Japan	...	...	2.7
2.	Siam	...	...	2.6
3.	India	...	...	1.9
4.	Philippines	...	...	1.1
5.	China	...	...	0.3
6.	Persia	...	...	0.2

India's industrial and commercial efficiency as registered in *per capita* command over railway route-mileage is, then, as low as conceivable. It is just above that of Persia, China and the Philippines. Absolute figures give India the sixth highest position in the railway world. In

real comparative statistics she should appear to be a non-entity.

We shall now size India up as a railway region from the standpoint of the number of miles or kilometres ($\text{km} = 5/8 \text{ m}$) available in every 100 square miles. For 1925 a large number of countries may be arranged in the following three groups :

I

Countries with more than 5 km per 100 sq km

1. Belgium	...	...	36.5
2. Great Britain	...	...	14.5
3. Switzerland	...	...	14.0
4. Germany	...	...	12.3
5. Hungary	...	...	10.3
6. Czechoslovakia	...	...	10.0
7. France ...	...	..	9.7
8. Austria ...	...	...	8.4
9. Italy ...	...	...	6.8
10. Poland ...	...	...	5.0

II

Countries with more than 1 km per 100 sq km

1. Japan ...	...	...	4.5
2. U.S.A. ...	...	...	4.3
3. Rumania	...	...	4.1
4. Sweden	...	...	3.5
5. Spain ...	...	...	3.1
6. Greece ...	...	...	2.5
7. South Africa	...	...	1.5
8. India ...	...	...	1.3

9. Argentina	...	...	1.3
10. Mexico ...	...	...	1.3
11. Chili ...	...	...	1.2
12. Norway	...	...	1.1
13. Russia in Europe	...	...	1.0

III

Countries with less than 1 km per 100 sq km

1. Canada	.	...	0.7
2. Siam ...	..	...	0.5
3. Brazil ...	...	...	0.4
4. Philippines	..	...	0.4
5. China ...	...	...	0.1
6. Russia in Asia	..	...	0.1
7. Persia ...	...	..	0.01

Whether in terms of *per capita* population or in those of area of the country, the route-mileage of Indian railways should thus appear to be capable of almost unlimited expansion. In order to measure India's poverty or backwardness in this regard let us focus our attention on the three groups arranged according to kilometre per 10,000 inhabitants. For 1925 we get therefrom the following among other railway-equations :

$$\begin{aligned} \text{U.S.A.} \quad (38.0) &= 3.17 \text{ France } (12.0) \\ &= 14 \text{ Japan } (2.7) + \\ &= 20 \text{ India } (1.9) \end{aligned}$$

$$\begin{aligned} \text{France} \quad (12.0) &= 1.3 \text{ Germany } (9.2) + \\ &= 2.22 \text{ Italy } (5.4) \\ &= 6.3 \text{ India } (1.9) \end{aligned}$$

Germany	(9.2)	= 1.24	Great Britain	(7.4)
		= 1.84	Russia in Europe	(5.0)
		= 3.4	Japan	(2.7)
		= 4.84	India	(1.9)
Japan	(2.7)	= 1.42	India	(1.9)
		= 9	China	(0.3)
India	(1.9)	= 6.3	China	(0.3)
		= 9.5	Persia	(0.2)

These equations are no speculative abstractions. We understand at once with mathematical precision that in the U.S.A. every individual possesses 3.17 times as much command over railway facilities as every Frenchman and 20 times as much as every Indian. It is clear that the railway mileage per head of the French people is more than that for the German people per head., that likewise is every German 1.24 times as railway-equipped as every Briton and 3.4 times as every Japanese. Every Japanese is in the same manner 9 times as railway-equipped as every Chinese, and every Indian possesses 6.3 times as much facilities as every Chinese and 9.5 times as every Persian. It is evident, then, that countries like Persia and China belong to the lowest rung of the railway-hierarchy and that India will need quite a long and extensive development in order to attain to the nearest higher level, say, that already attained by Japan which, by the bye, is rather modest by the world-standard.

It is clear, however, that there is a great difference between a "great power" and a "great power" in regard to the railway co-efficient. One cannot say that a country must possess a certain number of railway kilometres

per 10,000 inhabitants in order that it might rank as a "great" or a "first class" power in politics, military strength and culture. Similarly, there is no minimum railway-equipment for free peoples or sovereign states. For 1925, comparative statistics does not assert that in order to possess political independence or to be able to maintain it in the teeth of competition in world politics the railway-coefficient will have to be indicated by a certain lowest figure.

Let us, then, suppose that India's highest railway ambition for the time being consists in catching up to the Japanese co-efficient, viz., 27 km per 10,000 inhabitants. This would involve at once an expansion of railways to the extent of 1.42 times the existing mileage (62,074 km).

It is only if India to-day were by some engineering and financial fiat to possess 87,145 km instead of 62,074 km that she would just be on a par with Japan as regards *per capita* railway wealth. Similar calculations can be carried on in regard to the relations between India and other countries or between several foreign countries and we shall then get an idea of the backwardness or progress of industrialism in each region *vis a vis* the other regions of the world. And it is on the strength of such equations that comparative statistics can hope to establish world-economy on a scientific basis.

The relations between Japan and India on the score of route-mileage furnish us, for a single point of time, namely 1925, the two following equations :

$$\begin{array}{llll} 1 & \text{India} & (62,074) & = 3.3 \text{ Japan } (17,516) + \\ 2 & \text{Japan} & (2.7) & = 1.42 \text{ India } (1.9) \end{array}$$

The first equation establishes the parity between two peoples on the strength of absolute figures. This equality is valuable mainly in so far as the bulk or weight of two groups as single units in world-economy is concerned. It only proves that India is a big country. But it possesses hardly any significance and is indeed entirely misleading in an estimate of the relative railway "efficiency," "preparedness" or density, of the two countries. The really worth while parity is supplied by the second equation which says that man for man the Japanese is richer in railway power than the Indian people.

The Japanese standard in railway wealth is not a high standard. And yet for India to-day to rise up to this level does not appear to be a question of practical politics. The distance from 62,074 km to 87,145 km is almost uncoverable at the rate of progress that India has been exhibiting in recent years. In 1927-28 some 700 miles i.e. 1120 km were added to the traffic route and some 3,630 miles (5,808 km) were under construction. India's railway expansion for a somewhat long period in recent times can be indicated in the following figures of route-mileage open to traffic at two dates :

1913.....55,774 km

1928.....63,912 km

These figures relating to the curve of expansion in railway mileage furnish us with the following equation :

$$\text{India (1927)} = 1.13 \text{ (1913)}$$

Even the cynic will have to admit that India in 1927 possessed 1.13 times as many railway miles as India in 1913, and that to this extent railway expansion has ser-

ved the industrialization of the country perhaps in keeping with the proportional growth in population. But this snail's pace is not what is required to catch up to the railway industrialism of Japan. During the same period the Japanese rate of advance has been as follows :

Japan (18,759 km) 1927 = 1.76 Japan (10,610 km) 1913.

India's co-efficient of progress (1.13) is lower than Japan's (1.76); and as we have seen, Japan (1925) = 1.42 India (1925). The champions of India's industrial progress must possess Herculean shoulders in order to bear the responsibilities of bringing India up to the Japanese level of railway equipment. And of course in the meantime Japan is not going to fall asleep.

To visualize India's poverty or backwardness we may apply this equation-methodology of comparative statistics to the ton-kilometres or passenger-kilometres as well. Let us single out, again, only Japan to furnish the perspective for Indian developments.

In absolute figures for 1927

India (35,813,000,000 ton-km) = 2.7 Japan (12,455,000,000 ton-km).

The equation says that in India 2.7 times as many tons of goods were carried by the railways as in Japan. India's dimensions are extensive and population very large and this bulk of trade is naturally to be expected. But what kind of equation does one get in terms of *per capita* values?

In 1927 India is estimated to have had 331,500,000 and Japan 61,275,000 people. Per head of population, therefore, Indian railways carried 108 ton-km while the

Japanese 203. In other words, in point of inland commerce as indicated by railway ton-km

$$\text{Japan (203)} = 1.8 \text{ India (108)}.$$

Commercially, therefore, every Japanese is 1.8 times as powerful as every Indian. And such equations of comparative industrialism can be drawn from the other figures of international railway statistics as well.

In the foregoing analysis we have employed two types of equations for the purposes of comparative railway economics. The first type may be described by the following formula :

$$\text{Country "A" (1930)} = x. \text{ Country "B" (1930)}.$$

At any particular point of time in regard to *per capita* or *per square mile* values one economic region is x times as equipped, efficient or "prepared" or "dense" as another economic region.

For the second type of equations the formula would be as follows :

$$A (1930) = y A (1913).$$

$$B (1930) = z B (1913).$$

At two different points of time the index number or the economic curve for one and the same country exhibits a difference in values. This difference is, indeed, implied in the very conception of a curve or the index number. The rate of growth, i.e. so many times + or - , is the subject-matter of this type of equations.

It is possible to develop a third type of equations in comparative industrialism. This would have reference to two different economic regions at two different points of time, and the formula would be as indicated below :

$$\begin{array}{rcl} A (1930) & = & B (1905) \\ & = & C (1885) \text{ etc. etc.} \end{array}$$

(For the formulae representing these three types of equations see the chart on the frontispiece).

Thus, in regard to the subject of railway efficiency, we find that in 1913, the pre-war year, Japan, for instance, possessed 10,610 km of route-mileage. At that time the Japanese population was numbered at 53,363,000. In other words, the railway facilities for every 10,000 Japanese could be evaluated at 1.9 km. This, then, yields the following equation:

$$\text{India (1925) } 1.9 = \text{Japan (1913) } 1.9.$$

That is, in 1925 the railway efficiency or density of India or India's industrial and other "preparedness" in regard to the railway factor was identical with that of Japan in 1913. This is another way of saying that in 1925 India was 12 or 13 years behind Japan.

In comparison with Germany or France the chronological distance of railway-India would have to be measured by not less than half a century. And by this standard the "railway age" may hardly be said to have commenced in India.

From the standpoint of dynamic economics such as might exactly bring out the depth of primitiveness in India's railway and other items of economic life during the epoch of the 'second industrial revolution' and "word-economy", as the epoch in which we are living happens to be, nothing would be more suggestive and significant than this third type of equations. These and other equations are to be interpreted always, of course, with caution 'as regards the limitations' to which almost

15 In regard to the limitations to be observed in the interpretation of international statistics see the section on the meaning of India's banking equations, *Supra*, pp. 158-162.

all statistical calculations, especially, those of international statistics are subject from the very nature of the material in question. Not only as eye-openers to economic theorists and statesmen would, this type A (1930)= B (1905) etc. serve to clarify the intelligence in regard to the industrial relations of nations; but at the same time they are just calculated to furnish practical hints as to the "next stages," the "highest possible" ambitions, or the nearest goal in business organization as well as economic policy towards which applied economics in India can reasonably venture in a "planful" manner at the present moment.

"Recent" progress in the world's railway mileage may be seen in the following table which describes the developments (in miles and not in kilometres) from 1870 to 1910 :¹⁶

	1870	1889	1910
1 U. S. A.	52,922	160,544	236,422
2 Germany	11,729	24,845	36,235
3 France	11,142	21,899	29,364
4 British Isles	15,537	19,233	23,280
5 Belgium	1,799	2,766	2,888
6 Canada	2,617	10,585	24,731
7 Austria	3,790	9,345	13,591
8 Russia	7,098	17,534	35,347
9 Holland	874	1,632	2,235
10 Italy	3,825	7,830	10,425
11 Switzerland	885	1,869	2,791
12 Hungary	2,137	6,751	12,177

	1870	1889	1910
13 Denmark	470	1,217	2,121
14 Spain	3,400	5,951	8,961
15 Brazil	504	5,546	11,863
16 Chile	452	1,801	3,451
17 India	4,771	15,887	30,809
18 Norway	692	970	1,608
19 Sweden	1,089	4,899	8,321
20 Argentina	637	4,506	14,111
21 Mexico	215	5,012	14,845
22 Uruguay	61	399	1,371
23 Japan	...	4,542	5,130
24 China	...	124	4,997

Let us begin with Germany's figures and compare the development in Indian railways with an eye to statistical chronology. Even fifty years ago Germany's wealth in railways per 10,000 inhabitants was very much higher than India's to-day. The following equation embodies the comparative estimate :

Germany (1880) 7·44 = 3·9 India (1925) 1·9.

In 1880 Germany with 7·44 kilometres per 10,000 was 3·9 times as well equipped in railway matters as India in 1925 with 1·9 km only. And since 1880 Germany has not failed to advance rapidly, as indicated below (km per 10,000) :¹⁷

1880	7·44 km	1900	8·91 km
1885	7·94 „	1904	9·06 „
1890	8·50 „	1925	9·20 „
1895	8·70 „		

¹⁷ *Statistisches Handbuch für das deutsche Reich* (Berlin 1907), vol. I, p. 297.

And so far as railway mileage per 100 square km of area is concerned,

Germany (1880) $6.23 = 4.7$ India (1925) 1.3 .

India in 1925 with 1.3 km per 100 sq km of territory was still very much behind the German conditions of 1880. Germany with 6.23 km per 100 sq km was at that time 4.7 times as railway-equipped as India 45 years since then. Germany did not stop at that point. Her advance since 1880 is indicated below (km per 100 sq km):

1880	6.23 km	1900	9.22 km
1885	6.88 ..	1904	9.44 ..
1890	7.74 ..	1925	12.30 ..
1895	8.36 ..		

It is clear on both counts that the primitiveness of railway-India in 1925 by the German standard is to be measured by a much longer period than half a century. Let us go another decade backwards and we find that in 1870 Germany's go-aheadness in comparison with India (1925) was as follows (km per 10,000):

Germany (1870) $4.5 = 2.4$ India (1925) 1.9 .

At this point Germany and France were almost at par, the latter being slightly ahead.

We shall now analyze the chronological distance between France and India in railway industrialism. In 1870 France with 36,100,000 inhabitants possessed 17,824 km of railways, i.e., 4.9 km per 10,000. In other words,

• France (1870) $4.9 = 2.6$ India (1925) 1.9 .

At that time France was, then, 2.6 times as advanced in railway construction as India in 1925.

In comparison with Italy India's position is not so unfavourable. In 1870 Italy had 26,800,000 inhabitants and 5,820 km of railways, i.e., 2.1 km per 10,000. We get the following equation:

Italy (1870) 2.1 = 1.1 India (1925) 1.9.

In 1870 Italy¹⁸ was thus but a step ahead of India in 1925. One might remark that in 1868-69 Italy was in the same condition as India in 1925.

Altogether, then, India in 1925 does not belong to the "recent" epoch of modern transportation technique as embodied in railway industrialism so far, at any rate, as the economic history of Italy, France and Germany is concerned. In order to discover the Indian conditions of 1925 in these three countries one will have to rummage the railway statistics of the world previous to 1870.

As in the other items of the industrial revolution, in railway industry and commerce also Great Britain is the pioneer. The first railroads of the world were constructed in England in 1825, in the U.S.A. in 1827 and in France in 1828. Germany was ten years, Russia thirteen years, and Italy fourteen years behind the British Isles in the first construction of railroads as a new transport agency. Down to 1850 the railway origins of thirteen pioneering countries are indicated below in the chronological order:

18 The Italian figures presented here are slightly different from those given in *Compendio Statistico* 1.30 (published by the Istituto Centrale di Statistica, Rome), p. 221. Put in the interest of uniformity the figures of the *Railway Year Book* (London) are being used in connection with economic history.

1 1825 British Isles	8 1838 Russia
2 1827 U. S. A.	9 1839 Italy
3 1828 France	10 1844 Switzerland
4 1835 Belgium	11 1846 Hungary
5 1835 Germany	12 1847 Denmark
6 1836 Canada	13 1848 Spain
7 1837 Austria	

It is to be observed that none of these pioneering countries belong to Asia, Africa or South America, and none except Hungary belongs to the "Balkan complex."

During the first quarter of a century of the world's railway industry India is accordingly unknown as a factor. The railway origins of certain countries since 1850 are described below :

1 1851 Brazil	6 1857 Argentina
2 1851 Chile	7 1868 Mexico
3 1853 India	8 1869 Uruguay
4 1854 Norway	9 1874 Japan
5 1856 Sweden	10 1883 China

India thus begins 28 years after Great Britain, 25 years after France, 18 years after Germany and 14 years after Italy. In so far as the technical primitiveness of mankind such as is manifest in the absence of railways is concerned, we get the following socio-economic equations :

$$\begin{aligned}
 \text{India (1852)} &= \text{Great Britain (1824)} \\
 &= \text{U. S. A. (1826)} \\
 &= \text{France (1827)} \\
 &= \text{Germany (1834)} \\
 &= \text{Russia (1837)} \\
 &= \text{Italy (1838)}
 \end{aligned}$$

The year just preceding the formal opening of railroads has been taken in the above instance to be the last year of primitive technique in transportation. It is self-evident that down to the commencement of the first railway operations all the countries are equally primitive. In the race for modernization on which mankind has embarked since 1825 the most important item to notice is the rate of progress for each region or people.

The Indian conditions of 1925 will then have to be found

in Italy	somewhere	between	1830	and	1870,
in Germany	„	„	1835	and	1870, and
in France	„	„	1828	and	1870.

It is now time, then, to refer to the very early chapters in the world's history of railroad construction. The following table furnishes the early history of railroad mileage (in miles and not in km). The countries are being arranged in the chronological order of their railway origins.

(a) Countries which had railways previous to 1840

	1840	1850	1860
1 British Isles	1,857	6,621	10,433
2 U.S.A.	2,818	2,021	30,626
3 France	unavailable	1,714	5,700
4 Belgium	207	454	1,074
5 Germany	341	3,637	6,979
6 Canada	16	66	2,065
7 Austria	unavailable	817	1,813
8 Russia	„	310	988
9 Holland	10	110	208
10 Italy	13	265	1,117

(b) Countries which have had railways since 1840

1	Switzerland	...	15	653
2	Hungary	...	37	1,004
3	Denmark	..	20	69
4	Spain	...	17	1,190

(c) Countries which have had railways since 1850

1	Brazil	...	...	134
2	Chile	...	...	120
3	India	...	..	838
4	Norway	...	...	42
5	Sweden	...	...	375
6	Argentina	...	...	unavailable

It is about 1850 that Germany with a population of 35,900,000 possessed 5,818 km of railroads, i.e. 1.6 km per 10,000 inhabitants. But about 1860 with a population of 38,100,000 she possessed 11,160 km, i.e. 2.9 km per 10,000. The chronological distance between Germany and India in point of km per 10,000 is then embodied in the following equation :

India (1925) 1.9 = Germany between 1850 (1.6) and 1860 (2.9).

That is, India in 1925 was somewhere between the German conditions of 1850 and 1860, much nearer to 1850 than to 1860. For India to attain to the German conditions of 1860 is to-day not yet a question of practical politics. Indeed even Japan in 1925 with 2.7 is not on a par with the Germany of 1860. We are to understand automatically that between 1850 and 1860 or, say, about 1853, the year of the commencement of railroad operations in India, the German people were as primitive in railway mileage as the Indian in 1925.

In regard to France also the Indian conditions of 1925 are to be placed somewhere between 1850 and 1860. The French developments are indicated below :

	Population	Railway km per 10,000 inhabitants
1850	35,800,000	0.7
1860	37,400,000	2.4

We obtain, therefore, the following equation :

India (1925) 1.9 = France between 1850 (0.7) and 1860 (2.4).

By the French standard India in 1925 is much nearer to 1860, say, to 1858, than to 1850. It is plain also as a matter of course that in 1850 Germany was more advanced than France, and that in 1860 France was still behind Germany. But as has been indicated above, by 1870 France with 4.9 was already ahead of Germany with 4.5 and since then Germany has continued to be behind France (cf. the groups for 1925).

We shall now examine the developments in Italy. In 1860 the Italian population numbered 25,000,000 and the railway km per 10,000 was 0.7. The Franco-Italian relations yield the following equation :

Italy (1860) 0.7 = France (1850) 0.7.

At that time Italy was exactly ten years behind France and since then has never been able to catch up to the latter. And so far as India is concerned, her condition in 1925 is in the Italian perspective much nearer to 1870, say to 1868-69, as has been noted above, than to 1860. The Indo-Italian railway-equation from the standpoint of comparative chronology is as follows :

India (1925) 1.9 = Italy between 1860 (0.7) and 1870 (2.1).

It is to be understood that about 1870 when modern Italy came into being this country was as primitive in transport technique as India in 1925. Italy is thus not more than 55 or 56 years ahead of India.

So far as Germany, France and Italy are concerned, India in 1925 may be said to be lying in the industrial conditions prevailing between 1850 and 1870. It is interesting to observe that India begins to build railroads in 1853. From 1853 to 1925, i.e., in 72 years India has accomplished

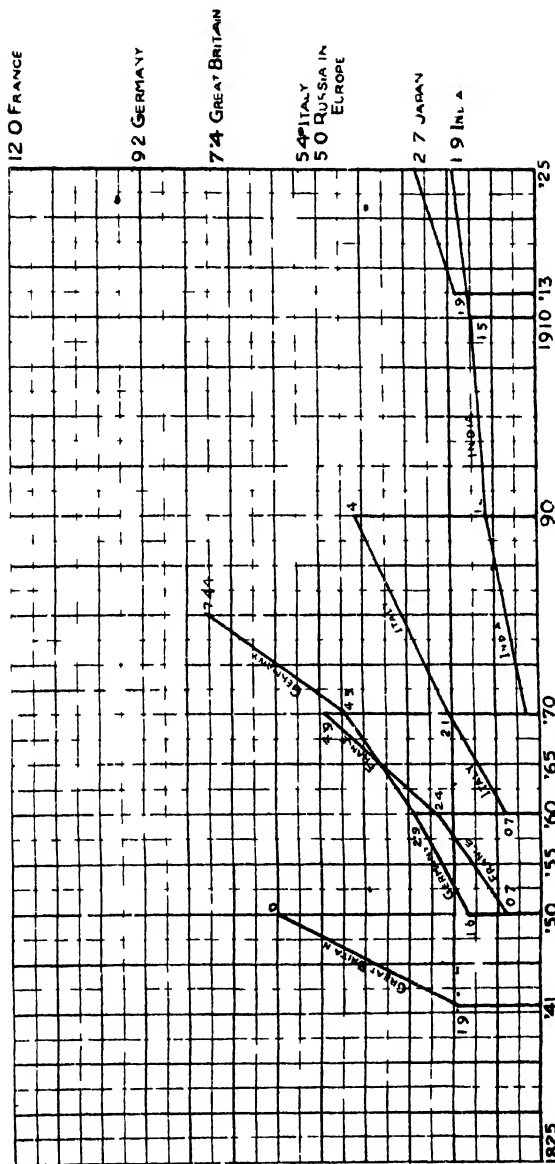
as much as Germany	from 1835 to 1853, i.e. in 18 years,
„ „ „ France	„ 1828 to 1857, i.e. in 30 years, and
„ „ „ Italy	„ 1839 to 1869 i.e. in 30 years.

India's 72 years = France's 30 years
 = Italy's 30 years
 = Germany's 18 years.

The rate of transport modernization in Italy is equal to that of France during this earlier period. Germany's rate is much quicker than that of both. And of course India is much too slow. India not only begins late, but proceeds to business also at a snail's pace. One cannot, however, overlook the technico-cultural and socio-economic fact that it is impossible to speak of Europe as a unit or a unified and uniformly developed system in modern civilization. The distances or divergences between the different regions of Europe are considerable. Europe is not homogeneous in industrialism. This becomes all the more palpable when one takes into consider-

(HANL VI

The Equations of Railways Industrialism (1825-1925)



India (1925) 19 = Japan (1913) 19

= Italy (1909) 10

= France (1858) 19

= Germany (1853) 19

= Great Britain (1841) 19

(To face p. 218)

ation the Balkan states including Greece, Eastern Europe and Russia.

A comparison with Japan in regard to the rate of progress would be illuminating. Japan too begins late, in 1874, twenty years later than India. But her velocity is remarkable by the Indian standard. From 1874 to 1913, i.e., in 39 years she catches up to India's conditions of 1925, for, as we have seen, in 1913 she possesses exactly 1.9 km per 10,000 inhabitants (the Indian coefficient of 1925). In India's 72 years = Japan's 39 years. The Japanese rate during this early period of her railway history is, however, slower than France's and Italy's and of course considerably slower than Germany's during their early periods. Since 1913 there has been no question of India's overtaking Japan in the race for railway industrialism.

Politically speaking, Japan, Italy, France and Germany are 'great powers.' But in regard to railway industry and commerce it is impossible to discover a "great power" standard. In 1925 Japan belongs to class III (with less than 5 km per 10,000), the same group to which India belongs, Germany and Italy to class II (between 5 and 10 km per 10,000) and France to class I (with more than 10 km per 10,000). Evidently one cannot assert that in order to be appraised as a

P. Sarkar "Indiens Entwicklung im Vergleich zu Euramerika," *Deutsche Rundschau*, Berlin, July 1930, "Aspetti e Problemi della moderna Economia Indiana," *Annali di Economia* Milan, July 1930; "Il Movimento industriale e commerciale nell'India odierna ed i suoi rapporti internazionali," *Commercio*, Rome, September 1931, "Die Entwicklung und weltwirtschaftliche Bedeutung des modernen Indien," *Indien* (Stuttgart, Technische Hochschule, 1931

great power a people must possess at least so many kilometres of railroads per 10,000 inhabitants. Besides, as we have seen, in the rate of technical progress also there is no uniformity among the great powers, European or Asian. Finally in regard to pioneering activities there is no equality either. France begins in 1828, Italy in 1839 and Japan in 1874. Even with diverse conditions of technical efficiency or progress and railway or other industrialism it is possible for different countries to rank as political powers of the same class. The equations of international railway statistics should leave no doubt in this regard while examining the present niveau of railway developments in India. While it is important always to remember that from the standpoint of world-economy railway-India in 1925 is where Italy was in 1869, France in 1858, or Germany in 1853, it is at the same time no less necessary to observe that in the interest of political ambitions or other problems of applied sociology the people of India does not necessarily have to attain to the German, French, Italian or even Japanese standard of railway or other industrialism.

• Traces of Rationalization in Indian Business Enterprise

In this epoch of internationalism in competition and world-markets for diverse goods it would be strange if India should have failed to be invaded by rationalization in one or other of its elements as a factor in contemporary business organization.¹ In the every day economic parlance of India indeed it is not yet a universal category as in some of the more advanced countries of Eur-America. But India is already industrialized or industrially revolutionized enough to assimilate in part at least some of the contents of rationalization in her finance, technique and organization.

Measured in terms of results *per capita* of population as well as per square mile of territory, the industrial revolution of India should appear to be very modest. India happens to be still, like nearly the whole of Eastern and

1 Sarkar : "Trusts and Rationalization : Aspects of the New Industrial Revolution" (*Calcutta Review*, October 1927); *Statistics of Factories subject to Indian Factories Act* (Calcutta, 1928), p. 6; *Large Industrial Establishments in India* (Calcutta, 1927), p. IX; *Joint-Stock Companies in British India and Indian States 1926-27* (Calcutta 1928), pp. III-IV. On different aspects of rationalization in Europe see the author's publications in the *Journal of the Bengal National Chamber of Commerce* from 1929 to 1931; as well as 'Rationalisierung', in *Handwörterbuch der Staatswissenschaften, Ergänzungsband* (Jena, 1929), pp. 754-756; also *Die Bedeutung der Rationalisierung für das deutsche Wirtschaftsleben* (Berlin 1928).

Southern Europe, what may be described as an "industrialized" rather than as an "industry"-state. But some of the larger Indian industries or rather the individual big establishments in each line are huge and complex enough to appreciate and practise "scientific organization" in keeping with the latest world-standards.

The "thing" rationalization has therefore been domiciled in industrial economy for some time even although the "term" rationalization is not much in evidence among the theorists and business men of India. Let us take the cotton mills industry of the Bombay Presidency which has been constantly before the public eye since 1925. In Bombay City the Sassoon group controls ten mills and the Currimbhoy eleven. This sort of control by "managing agents" falls far short, of course, of genuine unification in finance and administration.² The directors of Bombay mills have perhaps hardly learnt as yet to speak, like their British colleagues of Lancashire, in terms of fusions, amalgamations, cartels or the like. But the not less important aspects of rationalization, namely, internal technological improvements and rearrangements have to a certain extent been demanding the attention of certain mill-owners in the Presidency, especially on the Gujarat side. Several mills of Ahmedabad, for instance, those owned and managed by Ambalal Sarabhai, have also commenced practising what may be called the elements of the "Taylor system" in regard to statistical studies of time, output, wages, etc. It was therefore possible for the Textile Tariff Board (1929) to hear from

² *Liberty* (Calcutta), 30 Nov. 1930; *Associated Press* (Delhi), 18 July 1930. *Cotton Textile Industry Enquiry* (Report of the Indian Tariff Board), Bombay 1927, pp. 258, 260-263.

some of the representatives of the Indian cotton mills that in equipment and installations one or two of them were even more up-to-date than some of the mills in Great Britain.

These aspects of rationalization are almost invariably connected in India as elsewhere with a socially regrettable and perhaps dangerous aspect, namely, retrenchment.³ Now retrenchment is not a very pleasant phenomenon in the lives of working men and clerks and leads very often to strikes. This socio-economic complex, rationalization retrenchment strikes, has been of late associated with the cotton mills of Bombay City. As if to advertize to the world that post-war India has already mastered the mystery of rationalization some 150,000 textile workers of this city went on general strike in 1928 (April-October). "Efficiency" of labour was the catchword of the managers and proprietors, and they wanted to introduce "new systems" of work. And in this they got their cue from the Tariff Board who had recommended, naturally with an eye to technical improvements on advanced Western or even Japanese lines, that (1) a spinner should be able to attend two frames and not one only as before and that (2) a weaver should be in charge not of two looms but of three. Labour-saving devices, whether technical or organizational, have had always but one reaction from the hands since the beginnings of industrial revolution (c1775-1830), and that is unrest, riot and strikes. The cotton mills of the Bombay Presidency are thoroughly Indian in finance and management. It is clear, therefore, that rationalization has been making headway

among the Indian people in certain branches of industrial endeavour.¹

The railways, as the most conspicuous embodiment of industrial revolution and modern industry in India, can also be cited in evidence of the world-wide current tendencies in rationalization. And here we notice both the fusion-amalgamation-concentration as well as the technical updatization elements of the rationalization complex. For a long time in India as in Eur-America the organizational question regarding railways was being fought on the item "public," "national" or "state" as contrasted with private, non-official or company management. The question of management by the state or by companies involved ultimately of course problems of economy and efficiency. And in this regard rationalization on a large scale may be said to have been introduced for the first time in 1905 when the Railway Board was established as an organ of the Supreme Government of India. The statalization has been advancing since then steadily, and the Railway Board of to-day, reorganized as it is on the recommendations of the Acworth Railway Committee (1920-21), represents not only the "nationalization" or public ownership-management principle in a more prominent form but also the unifying, centralizing and consolidating tendencies in the rationalization process. Seventy per cent of the railways are at present *state-owned* and forty per cent *state-managed*. And it is in keeping with the nationalization-cum-rationalization idea that the great railway amalgamations of 1925 were consummated. The fusion (4,011 miles) of the East Indian Railway with

the Oudh and Rohilkhand Railway as well as the transfer of the Naini-Jubbulpore Section of the E. I. R. to the Great Indian Peninsula Railway (3,656 miles) are, organizationally considered, some of the most signal instances of rationalization in the post-war economic world. Of equal value as this administrative consolidation is to be treated the financial rationalization of the railways brought about by the legislative agreement of 1924. Previously the general budget of the Central Indian Government was subject to the violent fluctuations such as were caused by the incorporation therein of the railway estimates, and the railways were thereby prevented from carrying out a continuous policy such as might lead to economy and profit. The railway finances have since the " convention " between the Government and the Legislative Assembly (1924) been separated from the general finances of the country, and the general finances have been receiving a definite annual contribution (some Rs. 60,000,000) from the railways. The railway tendencies in India have in many respects repeated those of Italy since 1905.

Railway rationalization is no less manifest in the engineering aspects. The State Railways Workshops Committee (1925-26), presided over by Sir Vincent Raven, recommended the abolition of certain workshops and the strengthening and improvement or modernization of others.⁵ The reorganization has meant the institution of

5 *Zeitung des Vereins deutscher Eisenbahnverwaltungen* (Berlin) 1926 (pp. 872, 1153), 1927 (pp. 163, 253, 715), 1929 (pp. 326, 570, 1094); *India in 1928-29* (Calcutta 1930), pp. 8, 147-150, 152-154. Compare the conditions in Italy since 1905 (Tosti: *Organization of the Italian State Railways*, a paper at the World Engineering Congress, Tokyo 1929).

labour-saving devices, the installation of upto-date tools and implements as well as the unification or centralization of functions, all those factors which involve as usual the discharge of hands. As in the case of the textile industry, this technological rationalization in railways also has been greeted with strikes, for instance, on the South Indian Railway during 1928. Another instance that rationalization has been brought home to the masses as a hard fact of contemporary industrial life in India. The employment of improved methods and efficient machineries, the suppression of smaller and more expensive factories and in their place the establishment of giant central workshops with facilities for mass repairs and mass production,—such features of post-war industrial organization as characterize the overhauls, for instance, in the Frankfurter Maschinenfabrik or the Motorenfabrik Koeln-Deutz in Germany, are getting well-known or rather well-established in the Indian economy of to-day.

The strike test of rationalization has been recently satisfied by another great industry of India. This is no other than the Tata Iron and Steel Co. Ltd. of Jamshedpur, which, be it noted, is 100 per cent Indian in directorate as well as inspiration and ambition. And in this connection it is relevant to remember that it was on the high crest of the Swadeshi Movement, that the works was launched almost as a patriotic national enterprise. The response to the prospectus issued on August 27, 1907 may be recalled in the following words of a lecture delivered before the Staffordshire Iron and Steel Institute (1912): “From early morning till late at night,” says the lecturer, “the Tata offices in Bombay were besieged by an eager crowd of native investors. Old and young, rich and poor,

men and women they came offering their mites ; and at the end of three weeks, the entire capital required for the construction requirements,—£1,630,000—was secured, every penny contributed by some 8,000 native Indians.”⁶ But neither the patriotic origins of the company nor the nationalistic sentiments expressed by its chairmen in their annual speeches before the shareholders have been able to render it strike-proof when in the interest of “ efficiency ” they have decided upon a policy of retrenchment. In 1928 the works has had to experience not only the strike from the side of working men and clerks but a lockout from the side of the management as well.

Here, again, and even so late as 1928 the word rationalization does not appear to have been used by the directors. But the content of rationalization is embodied in the speech delivered by the chairman on September 27, 1928. “ It is not to the benefit of labour,” says he, “ that two men or even more should be engaged on work which can be done by one. It means inefficiency, it means loss of time. We took a definite step in our policy of gradually increasing efficiency by our announcement of October 1926 that when posts fell vacant they would be left vacant wherever possible.” And further, “ we knew that we had large numbers of surplus men but we resorted to this very gradual form of reduction in order to avoid hardship to any of the men. Results were obtained only slowly, but as they gradually became apparent, a cam-

6 Fraser : *Iron and Steel in India* (Bombay, 1919), pp. 35, 42, 52; Tuckwell : *The Tata Iron and Steel Co. (Royal Society of Arts Journal, London, 1 Febr. 1918)*; *The Tata Iron and Steel Company Ltd. (Jamshedpur) 1929*.

paign of misrepresentation of the company's intentions was started among the uneducated workmen."

If the directors were not unconscious of the "hardships" associated with the introduction of "efficiency," they were no less conscious of its ultimate advantages and benefits to the working classes. The chairman was emphatic to the effect that inefficiency meant that the "standard of the individual labourer and therefore of labour as a whole was being deliberately depressed with disastrous results to the whole class." The other side of the shield, namely, the positive aspect of efficiency has been likewise visualized by the directors when as their spokesman the chairman declared: "We want to be able to raise the wages of our workmen and at the same time to reduce the cost of our labour per ton. That is by no means an impossible ideal. We wish to do it by so training and organizing our labour that each man does more work and does it more efficiently, so that though his own wages will rise, the labour cost of what he produces will fall." In the same strain he went on with the statement of policy as follows: "We want labour to accustom itself to payment by results which is the only way in which the standard of Indian labour can be improved."

So with retrenchment and unemployment in one hand and higher wages and efficiency in the other the directors of the steel works are consciously educating the people of all ranks to the double-edged sword of rationalization. In speeches like this we have another evidence to the effect that rationalization of the purest brand,—100

per cent Americanism in business organization,—is being imported duty-free into the industrial atmosphere of India.

Industrial India is not prepared, it should appear, to boycott rationalization in its relations to labour, but is determined to face it in a deliberate and well equipped manner. Another aspect of rationalization is equally well represented at Jamshedpur both in theory and practice. This has reference to the desirable size of industrial establishments as paying economic units. And in this regard also the pioneers of Indian steel industry do not intend to march haltingly. At the annual general meeting of the shareholders held on September 16, 1926 the chairman in the exact spirit of the great founder of the works gave expression to his modernism and upto-date-ness by citing Ford, the American, Citroën, the Frenchman, and Morris, the Briton, as having "each in his own way made the principle clear to the world," viz., that "the greater the number of motor cars turned out at one plant or by one company, the lower the cost of the car." And "this is not a new discovery made by the motoring industry," said he. "In all large scale industries it is a commonplace maxim. And in steel the greater your production of one particular thing (rails is a very good example) the lower your costs." The "mass production" aspects of rationalization have been therefore being introduced in the steel works as a matter of business policy.⁸

Here, then, is to be found the theory underlying the so-called "Greater Extensions," which, as the chairman explained, is not an extension of anything that formerly existed but a "new complete and modern plant for the

mass production of coke, pig iron and rolled steel with a very much larger capacity than the old plant." This new plant has been in operation since 1924 and by 1926 the chairman was in a position to announce that it actually increased production and reduced costs. The following figures indicate the difference in the costs of production between the old and the new plants :

		Rail	Bar
Old	...	Rs. 150	Rs. 163
New	...	112	130

Reduction in working costs through the enlargement of the plant is then an aspect of rationalization to which Indian industrialists have been getting used. The same theory finds expression in the declaration of policy made to the Tariff Board (1926) of which a summary is presented in the chairman's speech of 1926 in the following words: "We propose," said i.e., "to close the old rolling mills and to roll all the steel on the new mills." This has reference to one part of the plant. In regard to another part, we are told about their intention "to instal one new steel furnace and convert some of the old steel furnaces so as to increase the production of steel." This is the typical language of orthodox rationalization, be it German or American, especially in its post-war tendencies. The programme was chalked out for seven years. And it is because of this promise of extensions and improvements that the Tariff Board has recommended the "protection" on a new basis after the abolition of the bounties (1927)."

9 *Chairman's Speech* (Tata Iron and Steel Co.) Bombay, 1927; *Annual Report for 1927-28* (Tata Iron and Steel Co.) Bombay, 1928; *Report of the*

It is to be remarked that in regard to the capital expenditure of some Rs. 30,00,000—involved in this seven-year programme—the directors have decided neither to increase the capital nor to borrow of the market. They have been meeting the expansion expenses from out of the depreciation reserves. This, be it observed, is good rationalization in industrial finance.

The spirit of cultivating uptodateness in technique and industrial organization,—no matter whether it be in the enlargement of size or employment of labour-saving appliances or installation of improved tools and implements or the removal of obsolete methods and machineries—is nothing new with the works at Jamshedpur. All this is older than the seven-year programme of 1927 and the “Greater Extensions” of 1924. Experimenting, revising and changing, in one word, “industrial research” has been going on all the time since its very inception in 1911-12. In July 1911,—two or three months before even the first coke ovens were fired and naturally long before the first piece of ingnot steel was rolled on the blooming mills,—the uptodateness of the installation excited the admiration of technical experts. The members of the Indian Mining and Geological Institute who visited the works along with their president Sir R. P. Ashton made the following observations about the labour-saving devices: “The coal is carried mechanically into the crushers,” they wrote, “and having been so pulverized that the proportion which will equal the size of a pea will be less than

one per cent it is shot up into an elevator from which it is discharged into wagons for conveyance to the coke ovens. Seventy tons of coal can thus be handled and crushed in an hour. The ovens can turn out 500 tons of coke in twenty-four hours. The rams which drive the coal into the ovens, the levellers by which the coal is spread inside the ovens, and the pushers by which the coke is ejected from the ovens are all electrically driven, and the coal is scarcely touched by human hands from the moment of its arrival from the Jheria coal fields to the time when it is shunted to the blast furnaces yard."¹⁰

While reading this account of rationalization as manifest in the comparative negation of human hands one can almost visualize the latest embodiments of technical rationalization such as the electrical Kraftwerke at Klingberg near Berlin or the waterpower works at Erding in Bavaria exhibit in other lines. It is but the same spirit of employing the most up-to-date and efficient appliances that has furnished the inspiration for the enlargements and re-installations comprised in the 7-year programme.

By 1929 the new plant was to a considerable extent already in operation. The "B" Blast Furnace was "remodelled," a "new stove" was erected and four old stoves "enlarged." New electrical hoist equipment was installed and new storage bins added for ore and coke. A new International General Electric Company's blower was purchased. And "D" Blast Furnace was repaired and altered with a view to increasing its capacity.

For the production of steel a new Duplex furnace was installed as well as new gas producers. New

installations at the blooming mill and the rail mill were likewise complete. New John Thompson boilers were in operation as well as the new Escher Wyss blower foundations were ready:

Along with all these technical alterations and enlargements has to be noted the fact that since 1928 the fuel department has been under the charge of an expert in fuel economy who for several years was responsible for similar work with one of the large steel companies in Germany. It is in the milieu of these reconstructions and expansions that the chairman for 1928 felt inspired to refer several times in his speech to the "steady improvement of this great industry of ours." And he explained the trend as follows: "This substantial improvement made by the works is of course due to the increase of output and to the fall in costs. The latter is partly due to the fall in the price of coal, but about half of it or more is due to improved results at the works, improved efficiency, increased economy and a steadily increasing check on the quality of the materials which we buy and the price we pay for them. We are constantly trying to improve the quality and to reduce the price."¹¹

A most important aspect of rationalization such as is being handled by international cartels has reference to output and control over the quota of production. It is interesting to observe that the Tata Iron and Steel Co. has been pursuing a policy which is calculated to prevent overproduction. The reduction of stocks is a mention-

¹¹ *Chairman's Speech* (Tata), Bombay, 1928; Sarkar: 'Cartels in Japan' and 'International Cartels' in the *Journal of the Bengal National Chamber of Commerce* (1931-32).

able item in its business organization. "To-day we hold very small stocks," says the chairman's speech of 1927, "and it is the success of our policy in reducing them more than anything else that has freed the company from the financial troubles of three years ago."

The proportions between turnover and stock as exhibited in the following schedule will indicate the trend of recent years :¹²

Year		Turnover Rs.	Stocks Rs.
1925	...	76,000,000	11,500,000
1926	...	80,400,000	9,300,000
1927	...	81,200,000	5,800,000
1928	...	60,402,004	7,371,674
1929	...	40,721,030	7,082,509

The reports for 1928 and 1929 do not continue the story of the trend from 1925 to 1927. But an explanation is found in the following statement published in the *Annual Report for 1928-29*: "The confusion caused by labour troubles at the works," we are told, "interfered considerably with the work of the sales department. Supplies were not regular, and orders booked had to be cancelled and rebooked and cancelled again until the works settled down to normal production and deliveries." It is clear, however, that the directorate is keenly conscious of the importance of rationalization in marketing.

This story of the progress of rationalization in the Tata Iron and Steel Works should acquire a special signi-

finance when it is placed in the perspective of the fact that the superior technical staff has been all time becoming more and more de-foreignized. To-day the dependence of the works on Eur-American talent is less than it was a few years ago, although more steel is being produced than formerly. The so-called "covenanted service" consisting as it does of engineers, chemists, and metallurgists imported from abroad has been steadily going down. The following figures indicate that the foreign element has been decreasing while the output has been on the increase :

Year	Foreign Officers	Output
1925	... 229	248,000 tons
1926	... 160	320,000 ..
1928	... 148	408,000 ..
1929	... 134	275,000 ..

The diminution in the output for 1929 is explained by the longstanding dislocation caused by the strikes and lockout. But the trend in "Indianization" and in slow but steady emancipation from alien technical hegemony is none the less quite patent. And so far as economy in industrial finance is concerned, be it noted that Indianization is to be appraised as a very valuable element in rationalization. We may consider in this connection the work of the Technical Institute at Jamshedpur about which the chairman for 1927 says: "That institution year after year is turning out trained Indians who fall naturally into their place in our works. Naturally they cost us less than imported men, and even apart from that; we are all as Indians anxious to see our industries actually managed and worked by our fellow-countrymen. The steel industry has made great strides in that direction.

In the ordinary routine part of the work it will not be very many years before we achieve practically complete Indianization, and one of these days the world may come to India for men just as we now go to Germany."¹³

That "Indianization" as an item of financial economy combined with the maintenance of efficiency is a genuine factor in rationalization was apparent during the first five or six years of the works. An English mechanical engineer in the service of the company delivered a lecture on the Tata Works before the Royal Society of Arts, London, in 1918, while the Great War was still going on. In the *Journal* of the Society, published on February 1 of the same year his lecture says in part about the quality of Indian labour as well as the reduction of European staff as follows: "To-day in the bar mill three 8-hour shifts, which would require the employment of 27 Europeans, are manned by a crew of 25 Indians who run the plant economically with only two European superintendents, and in the other departments similar reductions have been made. The chemical laboratory originally employed five European chemists. Now the chief and assistant are Europeans, the remainder of the staff of twenty one being Indians. * * * In very many instances Indian workmen have shown themselves possessed of extraordinary skill and manual dexterity, and the electrical department is under the superintendence of an Indian gentleman, a graduate of an English university, assisted by a staff of Indian wiremen and electricians."¹⁴

13 *Chariman's Speech* (Tata), 1926; *Annual Report* (Tata), 1928-29.

14 Tuckwell, *Supra*, p. 227.

Last but not least in importance as a rationalizing factor in the industrial organization of the Tata Iron and Steel Co. remains to be observed that the concern represents a commercially complete and almost self-sufficient system from the bottom upwards. It does not have to depend on others for its raw materials except to a small extent, because it possesses its own mines. Possession of or command over raw materials on convenient terms is undoubtedly a most valuable item in economy. The chairman for 1928 was in a position to announce that the work of the coal department was of great benefit to the company. It should be noted, however, that much of its coal comes from outside. The next point is that the markets for the series of finished products are to be found in the works itself. Coke is manufactured out of coal. The whole of it is utilized in the works. So the company does not have to depend on customers for its disposal. In other words, coke which from the standpoint of industrial technique is a "finished product" in relation to the raw material coal, is but a raw material in the eyes of the company itself in regard to its next higher stage of manufacture, namely pig iron.

So far as pig iron is concerned, virtually the entire supply of raw materials comes from the company's own mines. The *Annual Report* 1928-29 furnishes the following account of despatches to the Works from its mining department :

Iron ore	...	...	831,129 tons
Dolomite	...	...	2,257 ,, .
Limestone.	...	...	16,027 ,,
Manganese ore	...	...	12,660 ,,

Magnesite	...	...	1,419	..
Fireclay	...	...	1,379	..

It has only to be remembered that each of these raw materials can be, as it generally is, the finished product, so to say, of independent mining concerns. The Tata Iron and Steel Co. may therefore be regarded as a great trust which in its power (coal) as well as raw materials rests on very strong foundations.

Pig iron is a "finished product" by all means, and part of it is exported by the company. But the rest is utilized by the company itself in its steel furnaces. The Tata Iron and Steel Co. might have stopped at this, the steel stage, just as the Bergal Iron Company, the Indian Iron Company and the Mysore Iron Works stop at the pig iron stage. In other words, the company might have exported all its steel or sold it to other companies. But it has chosen to use its steel as a raw material for the next higher stage of its own manufactures. The market for its steel is thus the company itself. At the present stage of its development the final manufactured goods of the company may be detailed as rails, fishplates, bars, light structural, heavy structural, plates, sheets, etc. The hierarchy of manufacturing processes would have been complete if the company were in a position to utilize these bars, sheets, etc., for the manufacture of wagons, motor-cars, ships, etc., in its own workshops. A tendency in that direction is slightly embodied, however, in its department of agricultural tools and implements (Agrico).

Command over raw materials in all the stages as well as command over markets except in the last stage of production is then a special feature of the Tata organization which cannot be overlooked by persons interested in

industrial morphology.¹⁵ And in terms of technological nomenclature all the manufactures of the company except the rails and bars, etc., namely, coke, pig iron and steel which would be regarded as finished products by other companies are in its own estimation nothing but raw materials, "semi-manufactures," or rather intermediates. Finally, it has to be observed that in regard to the disposal of its own finished products the *Annual Report for 1928-29* says as follows: "Stockyards in different parts of India have been started and a large proportion of our steel will be ultimately distributed through them." Economy in marketing could not be better realized in any other way. This is but the last of the many economies that have been accruing automatically to the company because of its essential character as a "vertical trust" combining in one financial and technical complex a number of enterprises in the hierarchical order of production.

The utilization of "waste products" at the coke oven department which in combination with the sulphuric acid plant leads to the manufacture of sulphate of ammonia and coal tar is likewise a mentionable item in the works from the standpoint of industrial structure. For, this gives rise to economy which lessens the price of coke and ultimately of pig iron and steel and thus assures or rather strengthens the capacity of the company to compete on the world-market.

The achievements of the Tata Iron and Steel Co. in rationalization along the different fronts,—in technique, in

15 'The Stinnes Complex in German Industry' in Sarkar: *Economic Development* (Madras, 1926), pp. 60-63.

finance, in personnel, in marketing,—are distinct and signal enough to be followed with keen interest by students of comparative industrialism and applied economics. Indian statesmen and business experts are watching the experiment with intense personal sympathy. But,—and this is equally; if not more significant,—the politicians and business men of Eur-America who are traditionally sceptical about India's capacity to produce steel and to maintain a giant concern have grave doubts about the future of the company. To foreign observers this steel industry of India is still appearing as an exotic "unsuited to the tropics." The Tata Co. is to-day nothing more than an object of international curiosity.

But this challenge from far and near has been boldly accepted by the directors. To the Tariff Board and to the Indian Legislature they have offered assurance that by 1934 "they will have established an industry that can stand on its own feet and needs no assistance in the way of protection." Nay, more; to his countrymen the chairman for 1926 has the following message to deliver: "If this company is successful other companies will follow and within twenty or thirty years you may see a Pittsburg in and around Jamshedpur supplying India with cheap steel she requires for her railways and motors, her ships and her industrial development, a source of strength and wealth to the whole nation."

Not less is rationalization being practised at the Mysore Iron Works (Bhadravati),¹⁶ an enterprise of the Govt. of Mysore, which however is a pigmy concern by the side

16 The details may be seen in the article on the Mysore Iron Works in the *J.B.N.C.* for 1931.

of the Tata Iron and Steel Co. It is to be observed that although steel is being produced here just to "investigate the possibilities," the only product for which the works has been installed in 1918 is pig iron. The fundamental technological feature, however, consists in the fact that not the coke derived from coal, but charcoal "distilled" from wood furnishes the raw material with which iron ore is treated in the blast furnace. The capacity is limited for the present to about 60-65 tons of charcoal and 80 tons of pig iron per day.

Small as it is, the works would have perhaps failed to be economically worth while had it not been furnished with labour-saving appliances in its different stages and sections. For instance, there is a steel ropeway, three miles long, operated by gravity, which brings the iron ore down to the foot of the hill which is about 24 miles away from the works. Then, again, a network of tramways, some 100 miles long, has been constructed to transport the fuel from the forests to the works. It is important to note that it is on account of the absence of mechanical conveyance and transportation facilities that the utilization of raw materials has not yet been an accomplished fact in various parts of India.

At the next stage two important economies are noteworthy. First, there are the power-saws with which the wood is split and billeted to the required sizes and loaded into the cars. And secondly, during the distillation process in the carbonizing apparatus, known as retorts, the mechanism is so contrived that the non-condensable gases that are eventually formed as chemical resultants can be burnt under the oven, thus serving to economize fuel.

The works utilizes its pig iron for the manufacture of cast iron pipes in conformity with the specifications of the British Engineering Standards Association. The pipe foundry is upto date, and the management has sought to eliminate manual labour by providing electrically operated machinery for such functions as ramming, core-making and screening and mixing of sand.

As at Jamshedpur, at Bhadravati (Mysore) also the utilization of bye products plays an important part in the works. The condensable gases of the wood-distilling retorts are being used in the chemical plant, as part of the concern, for the manufacture of acetate of lime, methanol, methyl acetone, a wood preservative and a disinfectant.

With all these economies the Mysore Iron Works does not yet feel after six or seven years of work quite sure of the market. There is no doubt that rationalization has contributed in no small measure to its staying power by cheapening its products. To-day in the epoch of world-economy no concern, whether in India or elsewhere, can expect to function unless it can deliver the goods at competitive prices. And rationalization is nothing but a powerful element in applied price-economics. In the struggle of industrial or commercial enterprises for existence and self-assertion rationalization is serving to-day as the most efficient aid to the bringing down of the supply-price to the lowest possible level.

Rationalization, as a prominent aspect of the economics of the lowest supply-prices in so far as competitive goods of the world-market are concerned, is therefore looming large in India in regard to the industries

on the margin of existence as well as to those that are yet only in projects. It is because of the want of rationalization that certain enterprises are passing through a crisis. And again, unless rationalization be attempted at the very threshold, as for instance is the case with the Tata Iron and Steel Co. and the Mysore Iron Works, certain other industries could hardly be called into being.

The Burmah Oil Company may in this connection be cited as another instance of an enterprise in India, although however not Indian in finance and organization, that satisfies the rationalization tests in a remarkable manner. It is, in the first place, from the standpoint of financial organization, a trust-like complex. For, like the Tata Iron and Steel Company, the B. O. C. commands not only the raw materials, namely, the crude oil of the oil-fields, but the finished products, the kerosene and benzene, etc., of the refineries as well. The next stages in the creation of values are likewise in the hands of the Company itself. The B. O. C. possesses its own "oil marine," so to say, to transport its goods to the desired markets. And finally, the marketing also is taken care of by its agents. The B. O. C. oil tanks are prominent installations in Indian cities. The sale is in the hands of the Burmah Shell Oil Storage and Distributing Company of India, which is the sales agency for the greater portion of kerosene marketed in India. The B. O. C., be it noted further, is an associate of the Asiatic Petroleum Co. (representing the Royal Dutch Shell Group) on the Kerosene Pool, constituting thus a link in the big British trust in competition with "Socofry," the Standard Oil Company of New York. In its price-war with this American trust, in

regard to the cheap Soviet oil that is alleged to have been "dumped" into India by the latter during 1927-28 the B. O. C. could therefore command all the advantages of international alliance while claiming protection before the Indian Tariff Board.¹⁷ But the Board, be it observed incidentally, disallowed the claim as economically unjustifiable. Secondly, in regard to technique also the B. O. C. is well rationalized. Its oil-fields are electrified, and its refineries, located at Rangoon, are connected by lines of pipes with the oil-fields far away.

If rationalization is so prominent in the mineral oil industry it is conspicuous by its absence in coal, which as power is allied to it in economic life. The recommendations of the Indian Coal Committee appointed by the Government to inquire into the coal situation were published in 1925. And from these one obtains an idea as to the technological and organizational backwardness of the industry. There are many collieries where mechanical coal-cutters are unknown. The introduction of more mechanical appliances is therefore one of the primary suggestions of the Coal Committee. Another defect which arrested the attention of the Committee consists in the fact that the coal raised is not loaded immediately into wagons. It is stacked for some time and later loaded by hand. The Committee has recommended the employment of mechanical loading appliances as well as the loading of coal as soon as the material is raised. These two technical shortcomings are combined with a third one to render coal-mining in India, among other reasons, economically incapable of maintaining its own even on the

17 *India in 1928-29* (Calcutta 1930), p. 178.

Indian market. This arises from the fact that from the face of the pits the coal has to be carried by women in baskets to the coal tubs on the rails. The Coal Committee has suggested that this conveyance should be taken away from human shoulders and be transferred to the wagons by extending the rails up to the point at which coal is cut by the men. All these suggestions have bearings on labour-saving devices and at the same time on economy in mining. In addition to these defects in the technique of mining there is the problem of transportation. The Indian collieries have always complained against the indifference and absence of co-operation from the side of the railway companies in this regard. Last but not least has to be noted that coal mining in India is virtually a "cottage industry." It is just here that the chief reason why the coal industry has remained so long poor in mechanical appliances and technological economies and why the managers of Indian collieries as a rule look askance at proposals for improvements in supervision, machinery, organization, etc., is to be discovered. The collieries are too small in size to enable "modernism" to be introduced. The total Indian output averages annually about 20,000,000 tons. But this is raised by no less than 900 to 1,000 independent companies. Altogether, then, the coal business presents us with a picture just the opposite of that of the B. O. C. or the Tata Iron and Steel Co. In the recommendations of the Coal Committee and the Report of the Tariff Board on the Coal Industry (1926)¹⁸ as well as in the work of

¹⁸ *Annual Report of the Chief Inspector of Mines in India 1927* (Calcutta, 1928), pp. 11-12, 113-116; 'Indian Coal Statistics 1928' (*Indian Trade Journal*, Calcutta, 13 Dec. 1928), pp. 6. 31-36.

the Coal Grading Board, which has been functioning since 1926 and in the suggestion in 1929 for the establishment of a Board of Research one will not fail to encounter the technological aspects of rationalization by attending to which the Indian collieries may expect to add to their efficiency and staying power.

The suggestions of the Indian Coal Committee should appear to read almost identical, be it observed *en passant*, with those of the *Report of the Committee on the British Cotton Industry* (1930). "We are satisfied," says the Committee, "that the British cotton industry has failed to adapt its organization and methods to changed conditions, and so has failed and is failing to secure that cheapness of production and efficiency in marketing which alone sells staple goods." The *Report* emphasizes that it is essential for employers and operatives to reduce costs and increase efficiency by concerted action. And the methods suggested for achieving these objectives consist of (1) the technical improvement of the spinning and manufacturing sections, involving considerable re-equipment and (2) the formation of larger units within each section of the industry.

The technique and trade of coal-mining are different from those of cotton spinning and weaving. And the industrial organization of Great Britain is certainly not on the same low level as that of India. The category "improvement" or "larger units," etc., does not therefore convey the same content in England as in India. But it is curious that almost the same language should have to be used, while discussing the question of reform, in regard to Indian coal as to British cotton. And in fact virtually the same thing has been said on other

occasions in regard to Indian cotton and British coal. We encounter here, indeed, the universal phraseology of rationalization which is applicable no matter what the economic region or the line of industry. The "new industrial revolution" has been manifesting itself in the self-same manner in all countries, adult or young, and in the most diverse branches of economic enterprise.

It is interesting to watch how in India the younger power, oil, is already perhaps adequately rationalized but the older power, coal, has just commenced mastering the alphabet of rationalization. In regard to the youngest power resource, namely, hydroelectricity, India has something no less interesting to offer to students of industrial organization, finance and technique. The present developments and future prospects of Indian hydroelectric works are intimately bound up with rationalization. Hydroelectricity, like everything else on earth, has to be delivered cheap, if it is to be delivered at all. And in this regard the economics of the lowest possible supply-prices present us not only with the well-known phenomenon of mass-manufacture or large scale production such as is calculated to bring overhead charges down and assure economies of all sorts but chiefly with another phenomenon that is prominent in trust-organizations and which we have noticed in the Tata Iron and Steel Co. and the B. O. C., namely, the command over or control of markets in regard to its own goods. The markets for hydroelectricity are naturally to be found in the lighting arrangements for towns and villages, industries and transportation systems, irrigation works, etc. Unless these facilities are available and adequate and unless the hydroelectric works can count upon such customers as

a regular business proposition the electric power is hardly likely to be placed on the market. The precondition for the establishment of hydroelectric concerns is the existence and co-operation of these multifarious power-using clients. And where independent clients are not forthcoming, the hydroelectric works, if it is to function at all, must establish industries of its own to utilize the power generated by itself.

The utilization of waste or bye products is a *sine qua non* of the iron and steel industry. The very *sine qua non* for the hydroelectric enterprise is similarly to be found in what may be described as industrial "ecology," i.e., the system of auxiliary, allied or associated industries, of which the utilization of bye products is but one aspect. Neither the iron-steel nor the hydroelectric concerns can flourish except as the nucleus of an industrial "complex." Whether this industrial complex is financially subordinate to it and forms part of one and the same organizational system or is independent of it in management and control makes hardly any difference. What is important is that from the standpoint of technology the nucleus and the complex must be intimately interrelated, one depending on the other as market to products, as affiliated members of "a community of interests," so to say. This is the verdict of rationalization as the science of minimum supply-prices.

Hydroelectricity in India has already been feeling this urge of price-economics as a "compelling" or "determining" factor in the system of industrial affiliations. The small installation at Shillong in Assam (1923-29) cannot flourish simply because of this absence of industrial atmosphere, the economic environment.

The ecology of associated industries has to be brought into being before the works can attain a level of prosperity. But the surroundings appear still to be rather irresponsive, nor are the promoters of the hydroelectric works financially strong enough to venture on industrial schemes of their own.

Let us turn our eyes, however, to the Bombay side. Here we notice how hydroelectricity¹⁹ is being pioneered by people who are reaping all the advantages of the ecology such as industrial rationalization involves. The original scheme (1910) of hydroelectric engineering works at Lonavla was restricted to 30,000 horse power. But the demand for power from the local cotton mills induced the promoters to extend the scheme (1911-13) up to a capacity of 40,000 h.p. The market for the sale of power has been furnished not only by cotton mills, but by flour mills as well. Besides, the Bombay Electric Supply and Tramways Company Ltd., as well as the Harbour Branch and Bombay-Kalyan Section of the Great Indian Peninsula Railway have followed suit as purchaser of power in connection with electrification schemes. The result has been the establishment, since the opening of the first works in 1915, of three new schemes in rapid succession (1916, 1919 and 1928). The total capacity at the present is measured at 140,000 h.p. when the third and the fourth schemes are complete in all the stages. All these installations have in their view not only the ambition to cater to the demand for power from the existing mill and transportation industries of the

19 See the publications of the Tata Sons Ltd. in regard to their electrical enterprises.

Bombay economic region,—but they have wide-reaching plans as well for enriching this economic region with new industries as purchasers of their power. Some of these new industries are to be started by the hydroelectric companies themselves, e.g., those involving electro-chemical processes. The “localization” of industry is thus acquiring a new significance under the dynamic pressure of electro-technology.

Rationalization as a system of affiliated or associated industries has therefore been regionally a fact of the Bombay hydroelectric ventures, and it is being “goalfully” furthered in a deliberate manner by the parties interested in the manufacture of hydroelectricity. And this aspect of rationalization has been helped forward, luckily for the enterprise, by two sets of circumstances, one natural or geographical and the other, business-morphological or socio-financial. Thus, the second and the third schemes are but physical extensions of the first one, so that the geographical unity has enabled the establishment of some degree of technological uniformity. This fact has been serving as no mean factor in the institution of economies. And secondly, all these four works are under the unified finance and control of the same “holding company,” Tata Sons Ltd. To this hydroelectric trust, worth Rs. 222,000,000 as capital, there has been a recent accession of American finance (1929) in substantial proportions which can but lead to the strengthening of the entire structure as one technologico-economic complex.

If the gigantic strides of the hydroelectric development on the Bombay side point to the previous existence, parallel development and possibilities of growth of a

large number of subsidiary or allied industries, and thus embody the results of rationalization in marketing, it is the comparative absence of facilities for rationalization in marketing, that is, the non-existence of associated industries, that explains the rather slow progress or even insignificance of modern chemical enterprises in India.²⁰ Like every other enterprise, chemical enterprise also in India must have to meet its customers on the world market, in other words, have to offer competitive prices. International cost-analysis furnishes the foundation of price-economics in the epoch of world-economy and the economics of chemical industry is, like that of hydroelectric, essentially none other than the technology of subsidiary or affiliated industries. It is only when the industrial ecology, or for that matter, the economic region, is rich, variegated and complex enough to enable the chemical by-products of certain enterprises being treated as raw materials for independent finished products in others that the goods can be placed on the market at the minimum supply-prices. In price-economics, indeed, the problem is the same for chemical goods as for hydroelectric power and iron or steel. The problem consists in introducing or utilizing economies by the most rational exploitation of "wastes" or subsidiary goods. In other words, in order to develop one chemical industry it is not enough to invest money and employ technical experts in that line only. One will have to develop simultaneously a large number of industries in the same group. It is necessary either to

20 The present situation is described in *Heavy Chemical Industry* (Report of the Indian Tariff Board) Calcutta 1929, pp. 8-15.

start a giant concern which is to function as a "vertical trust" in regard to the disposal of raw materials, semi-products, intermediates and finished goods, or to commence operations with the possibility of active co-operation between a number of independent concerns on the principle of community of interest. Chemical complexes or combines are technologico-financial necessities. An isolated chemical industry is doomed by its very nature. The *Italgas* of Turin (Italy) is one of the latest instances of this rationale.

Perhaps the most scandalous instance in India of the absence of rationalization or the want of affiliation between diverse industries is to be found in the low grade of development in or rather utterly primitive condition of the vegetable oil industry.²¹ The export of oil seeds from India to foreign countries is technologically accounted for by the fact that the industries dependent on oil seeds are undeveloped or find themselves in a very rudimentary state. It is not enough in a fit of economic nationalism to stop the export of the seeds. True rationalization would involve a simultaneous business activity along different fronts of the oil-complex. The seeds have to be pressed into oil in the most up-to-date manner. The pressing and refining works will give rise to "wastes," the oil-cakes. A new industry, that of fertilizers, has automatically to be taken care of. Then,

21 Banesvar Dass : 'Prospects of Oil Industry in India' (*Modern Review*, Calcutta, Nov. 1926); 'Hydrogenation of Oils and its Commercial Possibilities in India' (*Journal of the Bengal National Chamber of Commerce*, Calcutta, 1927); 'Fertilizers for India' (*Journal of the Association of Engineers*, Calcutta, April 1929); *Review of the Trade of India 1928-29* (Calcutta 1929), pp. 162, 209-210.

again, the finished product, oil, has to be treated as but the raw material for a series of further stages in manufacture. There must come into being factories for the manufacture of vegetable butter or other edible fats. The manufacture of candles can become another independent industry. * Paints and varnishes belong likewise to the same complex. Finally, there is the industry of soaps. To be successful in the manufacture and marketing of soaps the entire oil-industry will have to be rationalized, i.e., its different branches will have to march alongside of one another in response to the dictates of one socio-technological general staff. Failure or partial success in soaps presupposes and involves automatically failure or partial success in all. The fortunes of the different branches are interdependent. This interdependent character of the chemical industries has been arresting the attention of business organizers in India since the publication of the *Handbook* by the Indian Munition Board (1919). But the rationalization in the chemical industries seems as yet to be a long way off.

This would be apparent from the regrettable condition in another line of chemical industries, namely, soda compounds. In 1927-28 not less than 42 per cent of the total value of India's chemical imports belonged to this group, and it was priced at Rs. 11,200,000.²² Naturally, therefore, one might expect a fair degree of industrial development along these directions, for soda compounds constitute at the same time a very important element in modern industry. But in order to compete with the imports on the Indian market the manufacturers

of soda compounds must possess facilities in regard to the use of sulphuric acid, hydrogen, chlorine, ammonia, etc. All these chemicals will have to be regarded in business-morphology as bye products or allies and market comrades of one another in the economic sense. Prices can be brought down to the desirable level only if a "community of interests" were to handle the manufacture of these and other allied chemicals as parts of one and the same organization, a common system of marketable goods. There is no place for "cottage industry" in the chemical world. It is because of the relative absence of a noteworthy background of affiliation in associated enterprises that the few chemical industries that have become prominent in India during and since the War exhibit the condition of slow and halting progress.

The raw materials for chemical industries, both vegetable and mineral, are of course plentiful in the different economic regions of India. The number of chemical workers and engineers has also been on the increase during the last two decades. It would be sheer superstition to believe, as is the custom to imagine both in India and abroad, that the skill and qualifications of the intellectual hands in the chemical and pharmaceutical works of Europe and America are generally superior to those of the young men who come out of the Universities and technical colleges of India. Indian graduates of chemistry and engineering are competent enough to be placed in charge of factories and industrial research laboratories.²³ They may perhaps need for some time the

* 23 Sarkar: *Comparative Pedagogics in relation to Public Finance and National Wealth* (Calcutta, 1929), pp. 61-73; 'Das technische Studium in Indien' (*Bayerische Industrie-und Handelszeitung*, Munich, 9 Dec. 1930).

guidance of some directors such as possess the technical and administrative experience of competitive concerns in Eur-America and Japan. What is really wanting in India to-day in order to consummate the rationalization of the various factors in chemical industry is nothing but the Tata conception of industrial finance.

The establishment of subsidiary or associated industries as an element in economy, competitive cost, world-marketability etc., has been well assimilated by the inheritors of Tata's good will and genius, Tata Sons Ltd. They have not only made good use of the existing industrial environment with reference to their hydroelectric enterprises but they have at the same time been consciously pioneering new industrial concerns as markets for themselves. Besides, they have been systematically at work also in order to establish a *milieu* of mechanical and engineering industries with the Iron and Steel Co. as centre. The utilization of steel is being accomplished in their very zone in engineering works directly or indirectly connected with Tata finance. Not the least interesting item in connection with the establishment of auxiliary industries in the Jamshedpur sphere is to be found in the participation of this iron-steel complex with the B. O. C. for the establishment of a tinplate factory. In this co-operation between an Indian and a non-Indian trust we have but another specimen of rationalization in contemporary world-economy on Indian soil.²¹

The establishment of the Federal Farm Board in the U. S. A. by President Hoover in 1929 has been directing

24 Rep. Ind. Tar. Board regarding the continuance of Protection to the Steel Industry (Calcutta, 1927) pp. 105, 157.

the eyes of the economic world to the lines along which rationalization can be consummated in the domain of agriculture whether as regards restriction or expansion of acreage, financing of cultivation, or storage and marketing of crops. The possibilities in this field are immense as would be evident from the fact that the American government has placed at the disposal of the newly created Board the huge sum of \$500,000,000. Indeed, the tendency is to look upon the Federal Farm Board almost as on a par with the Federal Reserve Board of the banking and currency system.

Agricultural rationalization is not entirely unknown in Indian economic experiences.²⁵ The attempt to economize credit transactions with a view to agricultural operations or rather to place at the disposal of cultivators the facilities for short-period loans on relatively easy terms and thus to a certain extent emancipate the peasant world from the grip of the "loan-sharks" has in India as elsewhere led to the institution of co-operative credit societies. The Co-operative Credit Societies' Act of 1904 has been enlarged into the Co-operative Societies Act of 1912. In its present form the Act may be regarded as in a certain measure calculated to rationalize the purchase, cultivation and marketing done by agriculturists in addition to their credit transactions such as were exclusively taken care of by the legislation of 1904.

25 Sarkar : 'Modernisierung der indischen Landwirtschaft' (*Berichte über Landwirtschaft*, Berlin, Band XIV, Heft 2, 1931).

For the general principles of rationalization in agriculture see *L'organisation scientifique du Travail Agricole en Europe* (Rome, 1930), ch. XII, and 'Scientific Management and German Agriculture' in the *International Labour Review* (Geneva 1927).

In the sphere of agricultural marketing rationalization may be traced in India to the war measure of 1917 which brought a central cotton organization into being under Government auspices. This has later been developed into two distinct semi-statal organizations of extraordinary importance in the cotton trade and industry of the world. The first is the Indian Central Cotton Committee established in 1921 with the Agricultural Adviser to the Government of India as Chairman.²⁶ The Committee has been looking to the prevention of mal-practices such as lead to the spoiling of the market for Indian cottons. The "reputation" of Indian cottons is an important category in the thought and work of this Committee. The prevention of adulteration as well as the promotion of the expansion of acreage under "improved varieties" are naturally two very significant items in the Committee's programme. It maintains likewise a thorough machinery for research in spinning in its own Technological Laboratory at Bombay. The Institute of Plant Industry at Indore owes a great part of its finance to this committee which seeks at the same time not only to provide cotton research scholars with funds but also to improve the statistics of cotton in all its branches. The financing of all this cotton propaganda is being met from the ear-marked public revenues accruing as they do from the proceeds of the Cotton Cess Act specially instituted for this purpose in 1923.

26 *Indian Central Cotton Committee: The Present Position of the Research Schemes* (Bombay 1930), pp. 8-12; *Annual Report of the Ind. Centr. Cot. Conf.* 1930 (Bombay 1931), pp. 18-21, 77-83.

The second organization is known as the East India Cotton Association and was brought into existence by a Government charter in 1922. The functions of this Association are less comprehensive than those of the Committee. Indeed, the Association looks exclusively to the commercial aspects of cotton. A large number of independent and often conflicting organizations used to take interest in the cotton trade of Bombay previous to and during the first stages of the War. The establishment of the East India Cotton Association has led to the dissolution or merging of those units into one centralized body. Under the auspices of this Association a regular Cotton Exchange has been functioning at Bombay and steps have been taken to standardize the different cottons according to quality. For the first time the marketing of Indian cotton has been placed on a thoroughly systematic and uniform basis.

Rationalization is catching. The success of cotton rationalization has evoked a parallel attempt in the jute trade of Bengal. And since 1929 the subject has been demanding the serious attention of the Government.

In India as in Eur-America and Japan the War has been a great teacher of rationalizations. And as in other economic enterprises, in banking also India owes attempts at rationalization to the experiences of the War. The three Presidency Banks of Bengal, Madras and Bombay, as constituted by the Act of 1876, were independent of one another and also, to a very considerable extent, of the Government. The War compelled not only a greater and greater interdependence among themselves but also a more intimate association of each with the Government finance. The pressure of the money market and general

economic conditions such as has been the mother of bank fusions in Germany, U. S. A. and Great Britain as well as Japan has not failed to produce its effects in the Indian atmosphere. The merging of the three Banks in the Imperial Bank of India (1920) marks a most important event in the rationalization movement in Asia.

It should be observed that the Imperial Bank, although intimately associated with Government finance according to its charter, is not, as generally believed even in expert circles in Eur-America, a bank of issue. It is not a note-bank, but a fundamentally commercial credit-institution like any other "private" bank. The concentration movement as embodied in this merger represents rationalization in ordinary banking business. And although "semi-statal" in a certain sense, the centralization achieved here is economically of the same class as is another bank-merger in post-war India, as embodied in the Central Bank of India Ltd. which made its *debut* (1923) by taking over the Tata Industrial Bank established in 1918.

The example of this rationalization in a purely Indian concern, the Central Bank of India, has not as yet borne much fruit in practical banking as conducted by Indian businessmen. But the existence of some eight hundred "cottage" banks, so to say, generally known as "loan offices" on the Bengal side, has long been calling for amalgamations like those, for instance, in Italy, where since the currency reform of 1926 some 435 deposit banks have either liquidated or been merged. But the investigations of the Indian Banking Enquiry Committee (1929-31) as well as the experiences of actual trade and industry are well calculated to inspire several bank-fusions

in the near future, thereby economizing on a rational basis the credit resources of the country.²⁷

Finally, among the rationalizing processes and factors may be mentioned the 'federalization movement among the chambers of commerce functioning in India. There is, in the first place,' the organization known as the "Associated Chambers of Commerce of India and Ceylon" which represents the combined interest of the different chambers which are both European and Indian or rather preponderantly European in membership. In 1927 there has been established another commercial federation with the object of establishing co-operation between all those chambers of commerce which are exclusively Indian in personnel and policy. This is known as the "Associated Indian Chamber of Commerce."²⁸ Although this federalization idea among the Indian chambers may be traced back to 1913 it has got a fillip because of the International Chamber of Commerce with headquarters at Paris and other international economic organizations of the post-war epoch. As a conscious member of the "world-economy" the Associated Indian Chamber bids fair to be a strong formative force in the rationalization of Indian commerce and commercial intelligence.

27 *The Memorandum of Written Evidence of the Bengal National Chamber of Commerce submitted to the Indian Central Banking Enquiry Committee* (Calcutta, 1930), pp. 23-32; Sarkar: 'Banken und Bankiers im heutigen Indien' (*Bankwissenschaft*, Berlin 1931).

28 'The Federation of Indian Chambers of Commerce' in Sarkar: *Greetings to Young India* (Calcutta, 1927). Vide the present author's 'Aspetti e Problemi della moderna Economia Indiana' (*Annali di Economia*, Milan, 1930).

The World-Crisis in its Bearings on the Regions of the Second and the First Industrial Revolutions¹

The words "economic catastrophe" are on everybody's lips to-day. We in India are used to associate the phenomenon in a special manner with the happenings in Eur-America. The subject calls for an objective analysis.

It would be a mistake to suppose that Eur-America has been heading towards an economic disaster. The depression with which one has been coming

1 The present study calls attention to certain problems of the crisis-unemployment complex of 1929-32, which do not appear to have been adequately examined by the League of Nations and the International Labour office. It is not intended here to summarise their views which may be consulted in *The Course and Phases of the World Economic Depression* (Geneva 1931), *Problèmes du Chômage en 1931* (Geneva 1931), and to a certain extent in *The Social Aspects of Rationalisation* (Geneva 1931). See in this connection Gini: "La Crisi Mondiale" (*La Vita Economica Italiana*, Rome, March 1931). An American interpretation may be seen in Snyder: "The World-Depression of 1930" and the discussions of the American Economic Association (*American Economic Review*, Supplement, March 1931).

Some of the latest British interpretations are to be found in *The World's Economic Crisis and the Way of Escape* by Salter, Stamp, Keynes, Blackett, Clay and Beveridge (London 1932). The "Factors in Recovery" have been analyzed in the *Economist* (London), four numbers of May 1932.

into contact on the Continent and in Great Britain since 1929 is not the depression of appalling poverty and decaying efficiency but chiefly an aspect of socio-economic transformation on a tremendous scale. We ought to look upon the present crisis as a sign of rejuvenation which has been going on in every limb of the economic, financial and social organism among the industrial adults of the world. And this transformation of the industrial "great powers" bids fair to be beneficial to economic India also.

It has indeed become customary in business and political circles everywhere to describe the present-day economic depression as more or less a crisis of world-wide character. To a certain extent this description is correct, but a careful analysis will reveal that it is not legitimate to describe the crisis as really universal except in the sense that nearly everything that happens anywhere to-day is an element in or an expression of world-economy. In almost every nook and corner of the two hemispheres restriction of sales, glut in output, agricultural and manufactured, fall in prices, financial deadlock, reduction of hands are indeed observable. But for all practical purposes the circumstances of a genuinely "critical" character are to be found concentrated chiefly in the three industrial countries, Germany, Great Britain and the U.S.A. Another fundamental aspect of the crisis, perhaps the other side of the shield, is to be noticed in the regions of rice, jute, cotton, wheat, rubber and other agricultural produce. It is reasonable to emphasise the specialised zone or localized geography of the present depression.

Precise figures in regard to unemployment are

hardly obtainable. Up till now unemployment has not been an important item in American statistics. Germany and Great Britain are the only countries which attend to this branch of statistics very carefully. In regard to other countries the figures are neither exhaustive nor comparable. Indeed their reliability is questionable.

In January 1930 the United States Secretary of Commerce estimated an unemployment of some 6,000,000. This estimate was based on surveys of 19 cities throughout the country. About the middle of the same year the calculations of the International Labour Office (Geneva) yielded the result that the world's unemployed totalled some 20,000,000. This was just twice the number estimated in 1929. One notices that 30 p.c. of the world's unemployment was accounted for by the U.S.A. alone. Compared to 1929 there was an increment in unemployment in every country under inspection with the exception of Denmark, Esthonia, Latvia, Norway, Ireland and Soviet Russia.

The following table exhibits the figures relating to unemployment collected from 15 countries² (part-time and intermittent unemployed have been excluded from the list):

Country	Unemployed in Dec. 1930	Trade Union Members in 1927	Population
1. United States	6,000,000	3,051,618	105,710,620
2. Germany	4,894,000	8,196,035	63,338,753
3. Great Britain	1,853,575	4,501,000	42,769,196
4. Italy	642,169	2,905,631	38,755,516

2 *The Guaranty Survey* (New York), July 1930, p. 6; *Problèmes du Chômage en 1931* (Geneva) pp. 16-17. The trade union figures are derived from *Reichsarbeitsblatt*, 36. Sonderheft (Berlin 1927).

Country	Unemployed in Dec. 1930	Trade Union Members in 1927	Population
5. Poland	345,295	1,184,314	27,142,674
6. Austria	331,239	862,716	6,536,893
7. France	350,000	1,363,346	39,209,518
8. Japan	322,000	225,770	59,736,704
9. Rumania	42,689	42,604	16,262,177
10. Yugoslavia	9,989	35,590	12,017,323
11. Czechoslovakia	239,564	1,651,013	13,613,172
12. Australia	90,376	729,155	5,435,734
13. Sweden	80,578	478,469	5,904,489
14. Holland	72,191	517,914	6,865,314
15. Belgium	63,585	732,935	7,465,782

It is clear that of the nearly twenty million unemployed, the U.S.A. and Germany account for more than 50 p.c. and that these two countries together with Great Britain for 63.2 p.c. In other words, unemployment as a world-phenomenon is at bottom really a phenomenon of these three economic regions. This will be more obvious if we examine the statistics somewhat closely. The figures in column 3. indicate the trade union membership. Trade unions are not well organized in every country. It is questionable, therefore, if one should seek to exhibit unemployment, as is the custom,³ as a coefficient of trade union membership. Let us therefore indicate the unemployment figures as percentages of the total population. In descending order the coefficients may be shown in the following manner :

³ *3 Labour Year Book 1930* (London), pp. 57-63; Woytinsky : *Zehn Jahre neues Deutschland* (Berlin, 1929), pp. 132-134; *Problèmes* (1931), pp. 109, 113, 116, 119, 124.

1. Germany	...	7.7%	8. Sweden	...	1.3%
2. U.S.A.	...	5.7%	9. Poland	...	1.2%
3. Austria	...	5.0%	10. Holland	...	1.0%
4. Great Britain	...	4.2%	11. France	...	0.9%
5. Italy	...	1.8%	12. Belgium	...	0.8%
6. Australia	...	1.6%	13. Japan	...	0.5%
7. Czechoslovakia	...	1.4%	14. Rumania	...	0.2%
		15. Jugoslavia	0.08%		

In percentage of population the really mentionable regions of unemployment are Germany, the U.S.A., Austria and Great Britain. It is interesting to observe that in France unemployment coefficient is below 1.0.

The differential position of France in this regard will indicate the somewhat localized character of the present world-crisis. Like all other countries France also has been attacked by depression and unemployment. But these two phenomena are less prominent there than elsewhere.

France has never been and even at present is not an exclusively or predominantly industrial country. If we exclude the large mining and metallurgical industries we may say that France is chiefly a land of medium industries and that these industries are in intimate association with the agricultural enterprises. The French working classes have thereby grown to be as a rule half-industrial, half-agricultural. Certain other industries may be described as those operated on the domestic system. That is why in very many regions of the North and the Centre working men could occupy themselves industrially at home without abandoning their farming. The artisan-farmers or peasant-craftsmen of France were ruined during the Great War along with their districts in the northern

regions. But the reconstitution of France since 1920 has implied the resuscitation of this old social class, semi-agricultural, semi-industrial. It is this feature in the social economy of France that has greatly prevented the emergence of unemployment on a palpable scale and militated against the crisis manifesting itself in an acute form as in other countries.

Another feature of economic France deserves to be mentioned in this connection. Even in pre-war times it was a tendency of employers and capitalists to establish their works away from the urban centres. It was with the object of getting cheaper labour and keeping somewhat aloof from the theatres of syndicalist activities that the entrepreneurs sought the rural sites for their factories. Certain regions began in this manner to specialize in certain kinds of production, textile, cutlery etc. Besides, the invasion of Northern France by Germany compelled the industries to migrate towards the central districts, the south-west and the south-east. Finally, the post-war achievements in electrification have rendered possible the establishment of workshops in villages which previously were exclusively agricultural. Altogether, among the new tendencies in the industrialization of France the distribution of works over varied centres, "over the length and breadth of the country," may be regarded as a marked characteristic. The avoidance of centralization in the establishment of industrial enterprises is another factor that has helped France to avoid big doses of unemployment such as are consequent on heavy depression.

The comparative absence of unemployment in France is noted by German workmen as a socio-economic fact of great value from which Germany's employers

might learn a great lesson. The annual report for the year 1931 published by the *Union des Industries Metallurgiques et Minières* (Union of Metallurgical and Mining Industries), the most important capitalistic organization of France, should be an eye-opener to the capitalists of Germany,* say the German metal-workers.¹ From 1 December 1930 to 1 March 1932 there were only 480,000 working men thrown out of employment in France in the larger industries in question excluding the railway and shipping enterprises. The fact that the retrenchments have been so few is explained by the tendencies of the French entrepreneurs, first, to keep as many hands as possible engaged even for half-week periods, and secondly, at lower wage-rates when absolutely necessary.

Every previous depression has been observed to be preceded and followed by boom. The simplest instance is that of certain occupations or industries which are marked by seasonal fluctuations, and there, of course, one notices easily that the ups in the economic curve are as much to be expected as the downs. The present depression, whether taken as localized in certain areas, or more or less worldwide, may therefore like other depressions be regarded as being furnished with the almost inherent and automatic tendency to reaction in the opposite direction. Even without much thought it should be possible to postulate the cyclical reversion to recovery.

The explanation is very simple and indeed mechanical. Economic development is rhythmic by nature. A really stationary state is a condition unknown in actual

4 *Metallarbeiter-Zeitung*, Berlin, 28 May 1932.

economic life. Some sort of disproportion or maladjustment and want of balance is the most natural feature of every economic conjuncture, dynamic as it is at all moments. The want of economic harmony may manifest itself in the relation between production and consumption. Secondly, the maladjustment between currency-credit-capital and the transactions in goods and services can give rise to swings in prices, wages, employment etc. Disproportions or disharmonies of these two types are abundantly evident in the present economic conjuncture also.⁵ From the standpoint of the economic barometer the next movement to-day, natural and almost inevitable, can be only towards the rhythm of higher prices and better employment markets.

One may therefore naturally ask: Is the present depression then only temporary? In so far as the present depression is of a cyclical or rhythmical character, it is certainly temporary. But there are reasons to believe that there is something more than a merely cyclical phenomenon involved in the present crisis. The present situation is therefore not exclusively to be treated as temporary, and we should not look upon it as inherently furnished with an automatic tendency to recovery. The "expectancy" features psychologically associated with all cycles in an almost mechanical manner must not be made too much of in the present instance.

The present crisis is not only "cyclical" to a certain extent but it should be regarded as in great measure "epochal" also. Certain features of the depression are

⁵ The findings of the League of Nations and the International Labour Office are to be seen in *Problèmes* etc., pp. 22-32, and Gini: "La Crisi mondiale" in *La Vita Economica Italiana* (March, 1931), pp. 6-12.

likely to disappear in the near future with what we customarily know as business recovery. But certain features have come to stay and are likely to liquidate themselves only in the general process of the world's economic evolution. This is to be a "long run" phenomenon which is perhaps to be counted in terms of half a generation, a generation or so.

It should appear that we are to-day witnessing the transformation of the world's economic and social structure on a monumental scale and its transition to the next stage or epoch of its possibilities. The processes involved are really so many items constituting the final consummation of what may be called the "Second Industrial Revolution" in certain regions and of the "First Industrial Revolution" in others. The present crisis represents altogether a step in the mobilisation of the world from a lower to a comparatively higher standard of living and the promotion of a higher purchasing capacity of the peoples. Mankind is being keyed up to an elevated plane of efficiency and culture.

A question arises at once automatically as follows : Is it not rather paradoxical to connect nationwide unemployment-crisis with an epochal lift of millions in the standard of living and efficiency? The answer should be "—Perhaps yes, but yet not unreasonably." It is necessary to analyse the unemployment situation minutely. Several factors have contributed to the contemporary volumes of unemployment. It is important to recall that during the Great War many jobs were for the first time created for thousands and hundreds of thousands of men and women such as had no employment in the modern trade union sense previous to 1914.

They were entered on the employment rolls and statistically recorded as such. The war industries created an epoch of "over-employment," so to say, which under post-war conditions could hardly be maintained in a legitimate manner. In 1919-22 unemployment became therefore a mentionable "statistical" phenomenon simply because a large number of war-employees had automatically to be retrenched and this retrenchment had to be officially recorded.

The expansion in the membership of British trade unions in post-war years may be taken as an index to a certain extent of the inflated growth of employment during the war-period.

In pre-war years the membership was as follows :"

1910	1,647,715	1912	2,001,633
1911	1,662,133	1913	2,232,446

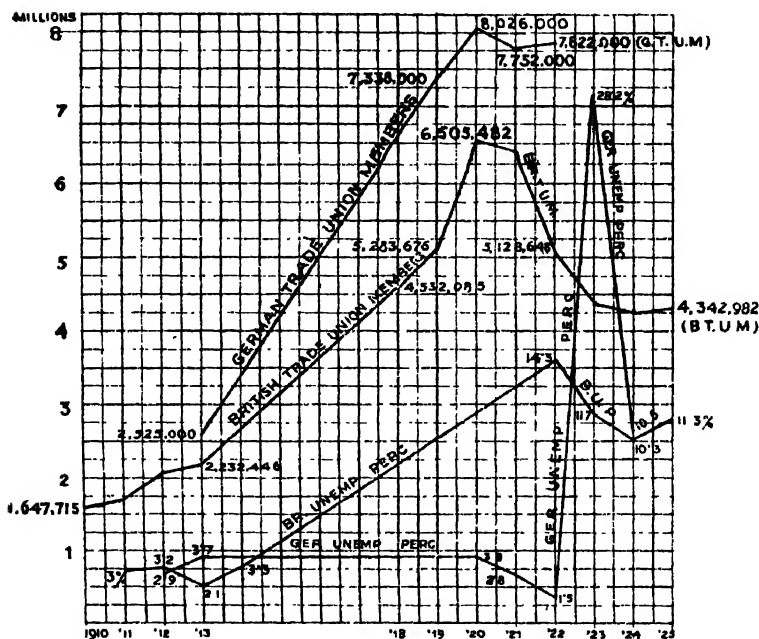
These figures indicate a slow rise in the curve. Then come the war years at the end of which we encounter the following figures :

1918	4,532,085	1920	6,505,482
1919	5,283,676	1921	6,417,910

Such figures for 1918-21 are certainly extraordinary in the perspective of those for 1910-13. Naturally, therefore, high unemployment becomes a normal feature of social economy about 1921-23. And it is interesting also to observe that the percentage of unemployment in proportion to trade union membership declines along with the decline in the membership itself. The figures for 1922 to 1925 will exhibit this relation :

CHART VII

Post-war expansion of trade union membership in Great Britain and Germany as a factor in unemployment



N. B. On the chart the unemployment percentages could not be exhibited in strict percentual relationship with the trade union membership.

(To face p. 271)

Year	Percentage of Unemployment	Trade Union Membership
1922	14.3	5,128,648
1923	11.7	4,369,268
1924	10.3	4,328,235
1925	11.3 ^a	4,342,982

The height attained by the index in 1922, namely, 14.3, will appear to be extraordinary in the perspective of the more or less normal heights of unemployment index in pre-war years. From 1910 to 1914 we have the following figures :

1911	3.0%	1913	2.1%
1912	3.2%	1914	3.3%

And this low unemployment indices correspond quite well to the comparatively modest figures of trade union membership.

In Germany also we have the same story of what may be called "inflated" employment. Here, again, we have records of trade union membership. Let us take the figures from the most important *freie Gewerkschaften* (free trade unions) for 1913 and place in its perspective the figures for post-war years, as follows :

1913	2,525,000 members	1920	8,026,000 members
1919	7,338,000 ..	1921	7,752,000 ..
1922	7,822,000 members		

The ascent from 2,525,000 in 1913 to 8,026,000 in 1920 is too steep and abrupt. This phenomenal increase in employment should appear to be unnatural for normal economy as known in Germany down to 1913.

⁷ *Problèmes*, etc., p. 110.

⁸ Woytinsky. *Zehn Jahre*, etc., p. 140.

And yet in Germany the post-war years (1919-1922) were not years of unemployment. On account of currency inflation and the export possibilities engendered by the fall of the Mark, German industry was in a position to keep this extraordinarily large working population fully employed. The unemployment figures for this period, therefore, are hardly noteworthy by the side of that in 1913.⁹ The following table will illustrate the position :

Year	Unemployment	Year	Unemployment
1913 :	2.9 per cent.	1920 :	3.8 per cent.
1919 :	3.7 „	1921 :	2.8 „
	1922 :		1.5 per cent.

We find that in post-war years the German labour market was the exact antipodes of the British labour market, there being very little unemployment in Germany. The currency inflation succeeded in hiding from the world the real employment situation of Germany. As soon as the currency was stabilised and economic enterprise placed on normal conditions Germany began to exhibit the same tendencies as Great Britain in regard to the labour market. The year from October 1923 to September 1924 marks the beginnings of stabilisation and this is for Germany the first period of unemployment too. For instance, we have the following figures :

⁹ *Problèmes*, etc., p. 114 : For previous years (in each case at January) the unemployment index was as follows : 1910 : 2.6%, 1911 : 2.6%, 1912 : 2.9%.

	Month	Unemployment
1923	October :	19·0%
	November :	23·4%
	December :	28·2%
1924	January :	26·5%
	February :	25·1%
	March :	16·6%
	April :	10·4%
	May :	8·6%
	June :	10·5%
	July :	12·5%
	August :	12·4%
	September :	10·5%

We are not interested in currency questions as such for the present. But it is clear (1) that the British unemployment situation of 1922 is repeated by Germany only a year later and (2) that the unemployment in Germany as in Great Britain corresponds to the enormous increase in employment as registered by the expansion of trade union membership of the post-war years. Under normal conditions neither Great Britain nor Germany was capable of giving employment to as many people as had on account of the exigencies of the war period begun to function as wage-earners and union members.

But in pre-war times such a condition would if at all have been treated as absence of employment or "under-employment" or perhaps simply poverty and would not have been regarded as "technically speaking" unemployment at all. In any case the statistics of employment would not have bothered about it. Thus considered, unemployment to-day is by itself not a very significant index to the comparative poverty or prosperity of a people in reference to two dates. It is hardly possible to admit

that the countries were richer when there was no unemployment than when there is. Absolutely speaking, the employment-seekers have to-day grown in number. Somehow or other, employments have to be created for them. This is not only an economic but a social problem as well.

Are we, then, justified in considering unemployment in Germany, Great Britain and U.S.A. to be all but a reaction to war-time over-employment? No, there is a second consideration. The post-war currency depreciation or inflation gave a fillip to industrial expansion in certain countries. The economic activities of the country with lower currency flourished, specially those in connection with export enterprise, down to 1923 (September) i.e., the beginning of currency stabilisation. Employment in a rather intensive degree or for that matter, over-employment became a phenomenon of statistics. Since then, however, industrial and other economic enterprises have been assuming more or less normal proportions. Cuts in employment or retrenchments have had to become the order of the day. Statistics to-day have therefore to record an unemployment situation engendered by the inflation of yesterday. This aspect of unemployment as but a reaction to unnaturally inflated employment, although associated with rare, peculiar historical circumstances, possesses perhaps more or less a seasonal character in a wide sense and may have to be treated as a fundamental feature in the economic structure of modern times. Should such seasonal fluctuations be regarded as cyclical in nature the inflation unemployment need not be taken to be really unusual or exceptional as an economic or social phenomenon in the

scientific sense. In regard to the relative poverty or prosperity at two different points of time, this aspect of unemployment again is not a sure index.

All this discussion is not to be interpreted as implying that there is nothing in the present unemployment situation which may be regarded as really unusual and exceptional. Certainly, there is to be observed an exceptional feature too. The years 1926-28 were characterised by big doses of rationalization in industry, commerce and agriculture. This involved the adoption on an extensive scale of a large number of improved machineries, tools, implements as well as of financial and organizational economies along the entire front of economic life.¹⁰ Rationalization is not a new thing in economic history. Since the beginning of the Industrial Revolution towards the end of the 18th. century it has been going on piecemeal in every branch of enterprise, but it is during the Great War and since that it has been consummated in a phenomenal manner. Rationalization has always implied labour saving and retrenchment. In the present instance this has served to be the third factor in the volume of unemployment. In the U.S.A. the annual increase in the output per man was 3.5% during 1922-27 while the figures for 1922 were not much above those for 1905. In Sweden the increase from 1915 to 1920 was slight but from 1920 to 1929 the yearly increase was 3.9%. In

10 For increase in the output per head see *Report of the Committee on Recent Economic Changes of the President's Conference on Unemployment*, vol. II, p. 452 in *The Social Aspects of Rationalization* (Geneva 1931), pp. 79-81. In regard to unemployment as caused by rationalization see *Problemes*, etc., p. 269; *The Course and Phase of the World Economic Depression*, pp. 66-77.

Germany the 1929 index of production was 27.5% higher than that for 1925 but the number of workers was not more than 5 per cent higher. The annual increment of output per head is then 5%. In Great Britain the output per head rose 10% from 1907 to 1924 and 11% from 1924 to 1929. And yet this rationalization-unemployment, although more or less unprecedented in scale, is not necessarily an index to the relative poverty or prosperity at two dates.

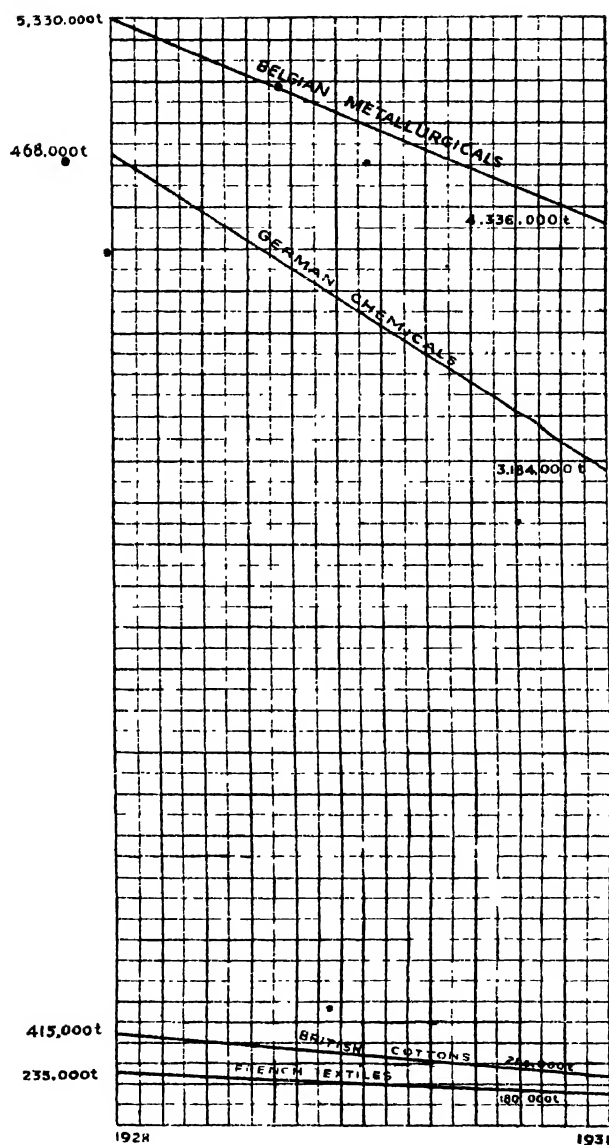
But all the same, nobody can deny that it is possible to find something special in the economic condition of the last two or three years. The facts indeed lie on the surface.

According to the findings of the Economic Committee of the League of Nations¹¹ announced in June 1932 world-trade to-day is nearly 50 per cent (in monetary value) of what it was in the first quarter of 1929. In weight, however, the decline is not so great but yet quite substantial. Thus British coal exports have declined from 50,051,000 tons in 1928 to 42,749,000 tons in 1931. Some of the other declines in exports may be envisaged in the following table :

Goods exported	in 1928	in 1931
1. British cottons	415,000 tons	214,000 tons
2. American automobiles	507,000 cars	120,000 .. (ten months)
3. German chemicals	4,658,000 ..	3,184,000 ..
4. Belgian metallurgicals	5,330,000 ..	4,336,000 ..
5. French textiles	235,000 ..	180,000 ..

¹¹ *World-Trade* (Paris), June 1932, p. 2.

CHART VIII Decline of Exports (1928-31)



(To face p. 276)

The export industries¹² of the chief manufacturing countries have been severely affected by the sudden and abrupt fall in agricultural prices throughout the world since 1929.

The facts may be illustrated from the case of India. With the end of July 1914, taken as 100, the price indices at two points in 1929 and 1932 are indicated below :¹³

	Cereals	Pulses	Sugar	Tea	Other Food articles	Oil seeds	Raw Jute	Raw Cotton	All Commodities
Sept. 1929 .	128	155	164	129	170	175	90	146	148
April. 1932 .	66	83	147	59	107	71	45	89	92

The decline in price is universal. The percentage of decline in April 1932 compared to the index in September 1929 is registered below in the ascending order :

- | | | | | | |
|------------------------|-----|-------|-------------|-----|-------|
| 1. Sugar | ... | 11.4% | 5. Pulses | ... | 46.5% |
| 2. Other food articles | ... | 37.1% | 6. Cereals | ... | 48.5% |
| 3. "All commodities" | ... | 37.9% | 7. Raw Jute | ... | 50.0% |
| 4. Raw Cotton | ... | 39.1% | 8. Tea | ... | 54.3% |
| 9. Oil seeds | ... | ... | ... | ... | 59.5% |

The general decline is found to be 37.9 per cent. The tremendous decline in the purchasing power of peoples producing pulses, cereals, raw jute, tea and oil seeds (46.5 to 59.5%) is patent on the surface. Likewise has their capacity to buy foreign goods naturally

12 Clay : *The Post-War Unemployment Problem* (London, 1929), pp. 39, 82, 93, 102.

13 *Indian Trade Journal*, May 12, 1932, p. 381. Note the calculations for the other dates in *Review of the Trade of India 1930-31* (Calcutta, 1931), pp. 5-7.

declined. The decline in the value of India's imports¹⁴ from 1928-29 to 1930-31 is shown in the following table :

1928-29 :	Rs. 3,006,900,000
1929-30 :	„ 2,684,000,000
1930-31 :	„ 1,915,300,000

This is the import story of virtually every agricultural country.

Orders from the agricultural regions ceased to pour in because they were not in a position to buy. The results have been considerable stand-still in the industrial regions and the consequent discharge of hands. But this fall in agricultural prices was due chiefly to a freak of nature, although to a certain extent the effect of an extension of the cultivated area and application of machinery (i.e. of rationalization).¹⁵

For the United States the decline in the value of agricultural produce is from 8,675,420,000 dollars in 1929 to 6,274,824,000 in 1930. For Canada the decline in the purchasing power of farmers who constitute 40% of the population is 44 per cent compared to 1928. In regard to 36 countries, most of which are essentially agricultural, the decline in imports is measured by 20 per cent and above (cf. 37.9% in India).

The unemployment in industrial regions as due to this fourth factor,—namely the fall in agricultural prices—may therefore be regarded as in the main temporary and rather accidental. Altogether, the cumulative effect of all these four factors is voluminous. To this have to

¹⁴ *Review of the Trade of India, 1930-31* (Calcutta, 1931), p. 8.

¹⁵ *Problèmes, etc.*, pp. 22-26; *The Course and Phases, etc.*, pp. 40-43.

be added the repercussions of the Indian and Chinese political activities on international commerce and politics.

A very pertinent question of fundamental importance in social economics which arises in the present connection may be worded as follows :—How is it possible to dissociate the phenomenon of unemployment from the question of poverty or prosperity?

A people is to be described as poor when the national income "per head" of the population is low. But in the economic phenomenon associated with the unemployment crisis of 1929-32 there is hardly anything to demonstrate in a palpable manner that the income per head of the population in currency or in goods and services is lower than it was, say, during 1905-14. If anything, the real wages and national consumption¹⁶ of the masses, the "teeming millions," in Great Britain, Germany and the U.S.A. have been moving on the ascending curve. It is to be understood, of course, that certain groups or classes of the population, agricultural, working, middle class or otherwise, may have been hit relatively harder than others.

That is a problem in the "distribution" of the national income or the different "directions" of economic activities which, however, is to be taken independently of the amount of the income itself, i.e. of the total production. A slow but steady class-revolution has been going on for some long time especially since the War. So far as the national wholes are concerned, the present unemployment as such, although a manifestation of depression,

16 See the section on consumption in *The Course and Phases, etc.*, pp. 150-152.

cannot be interpreted as a sign of economic catastrophe, decay etc.

A study of "real wages" in Great Britain yields the result that "real weekly earnings increased by about 11 per cent between 1914 and 1922," and "annual real earnings (including unemployment) increased by about 5 per cent."¹⁷ This fundamental conclusion is based on the following data of wage statistics :

1. Nominal weekly wages :

1850 :	100	1920 :	500
1914 :	200	1928 :	350

2. Cost of living :

1850 :	100	1920 :	275
1914 :	110	1928 :	175

3. Real wages (for workers in full employment) :

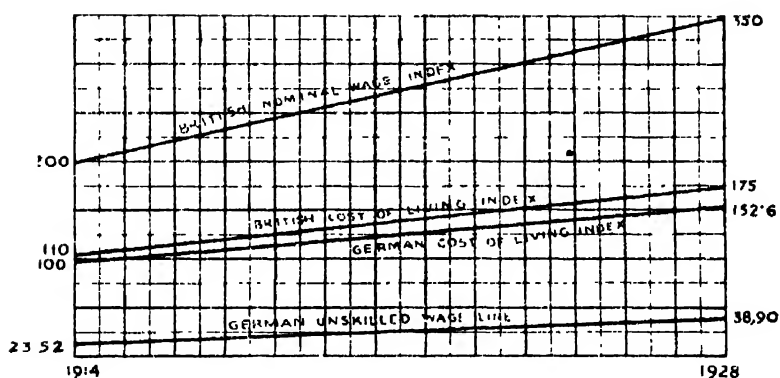
1850 :	100	1920 :	180
1914 :	180	1928 :	190

4. Real annual wage income (taking unemployment into account, but not taking into account overtime or increased earnings due to other factors) :

1850 :	100	1920 :	185
1914 :	180	1928 :	180

¹⁷ *The Labour Year Book* 1930 (London), pp. 68-69. The figures are based on "wage rates" and not on "earnings." "Earnings have increased more than wage rates, owing to a shift over to piece-rates, and owing also to an increase in productivity due to improved processes," etc. In regard to the wage trends of some other countries see "The Business Depression of 1930" (Goodrich) in the *American Economic Review*, Supplement, March 1931, pp. 187-189.

CHART IX
Wage and Cost of Living Indices in Great Britain and Germany
(1914-28)



N. B. The figures describing the values of the four lines do not represent a uniform basis of measurements. But in regard to each line the figures for the two years point to differences as measured by a common standard.

(To face p. 280)

German figures are almost equally reassuring. The weekly wage rates have gone up as set forth in the following table :¹⁸

Category of workers	1913	1928 July	Index with 1913 as 100
Skilled workers	35.33 M	51.46 M	145.6%
Unskilled workers	23.52 M	38.90 M	165.3%

The price-developments during the same period can be seen as follows :

Index	1913	1928 July
1. Wholesale Index of all prices	100	141.6
2. Cost of Living Index	100	152.6

The wage index of unskilled workers at July 1925, namely, 165.3 is higher than the two price-indices, 141.6 and 152.6. As for the skilled workers, their wage index 145.6 is higher than the wholesale index 141.6 but lower than the cost of living index 152.6. Although, there is no outstanding case for increase of poverty in Germany in recent years.

The budget figures will be good eye-openers in regard to the question of national prosperity in the milieu of depression and unemployment.

One thing is clear. The State has to maintain the unemployed in civilised countries, and we find objectively that the public finances are more or less adequate to maintain the millions of unemployed. This is a positive evidence of the fact that the tax-payers, specially the business corporations, are rich enough in spite of the difficulties of the hour. We are simply to understand that,

¹⁸ Woytinsky : *Zehn Jahre*, etc., pp. 121-122, 125, 129-130.

the people are being paid not as wage-earners but as citizens. The public finances in a really poor country cannot 'understand the expenditure on "social purposes" and the mysteries of unemployment insurance and "crisis aid" nor cope with famine relief problems in a satisfactory manner. Neither the German nor the British budgets, even under conditions of retrenchment and economy, are the budgets of famished and hunger-sticken peoples. It is, besides, very noteworthy that in spite of unemployment the organized labour forces in Germany and Great Britain are not prepared to agree to a lowering of the wage rates. The idea evidently is that the country is in a position to pay high rates and keep the wage-earners on efficiency level. In other words, the people expect that the Government as well as the employers combined can maintain the entire people and this in a sufficiently decent manner, no matter whether with statutory doles or economic wages. Some dislocation and maladjustment is certainly in evidence but neither the public finance nor the national wealth of the unemployment regions is in a seriously bad plight.

According to the first report of the British Royal Commission on Unemployment Insurance, the present financial scheme, so far as the state is concerned, is as follows :

1. Contribution to insurance benefit : £14,800,000
2. Cost of "transitional" benefit (i.e.
benefit paid to unemployed who
had not paid thirty contributions
in the two years preceding their
unemployment, and who there-

fore fall outside the scope of the insurance scheme proper); ...	£35,000,000
Total cost to the Exchequer by direct contributions ...	£49,800,000
Loan in course of year ...	£39,500,000
Total	£89,300,000

The actual state contributions of Great Britain to insurance benefit are exhibited below by the side of total national expenditure :¹⁹

Year	Contributions	Total exp	Percentage of 2 to 3
1927-28 :	£12,103,105	£838,6000,000	1.4
1928-29	£12,077,651	£818,000,000	1.4

Previous to the enactment of the Unemployment Insurance Act (1927) Germany had to spend out of her public finance large sums of money on *Erwerbslosenfürsorge* (aid to the unemployed). For 1925-26 we have the following financial position :²⁰

1. State Aid to the unemployed	489,800,000 Reichsmarks
2. Total Public Expenditure	14,477,900,000 ..
3. Percentage of 1 to 2	3.3%

During the first year of the operation of the Unemployment Insurance Act in Germany i.e. from October 1927 to September 1928 there were 15,904,935 persons on the insured list. Benefits had to be paid to 969,039

19 *Labour Year Book* 1930, pp. 170, 184. See the *Lloyds Bank Monthly Review* (May, 1931) for an estimate of the *Unemployment Insurance Report*. For a more recent analysis see "The Reform of the Dole" in the *Economist* (London), May 21 and 28, 1932.

20 Woytinsky : *Zehn Jahre*, etc., pp. 134-135, 174.

persons to the extent of 970,000,000 Reichsmarks. It is to be observed that in Germany unemployment benefits are met from contributions by working men and employers. There is no state contribution as in Great Britain. But in the German system there is a section of the unemployed who are described as affected by the *Krise* (crisis), and on this item the state comes to the rescue in the form of *Krisenunterstützung*. *

For the period indicated above the crisis-aid amounted to 137,922,958 Reichsmarks.²¹ This comes up to nearly 1 per cent of the total public expenditure.

If unemployment in any of the forms analyzed above is not a sure index to relative poverty or prosperity, why is there so much of unrest, nervousness and panic in the economic world to-day?

Let us state the position clearly. We assert first, that the regions with unemployment are not poorer to-day than they were when there was no unemployment, and secondly, that these regions are not poorer than the regions where there is no unemployment at the present moment. The Indian standard of life and efficiency must not be introduced in these observations. But on the other hand, it is necessary to admit that, absolutely considered, poverty is an eternal and universal phenomenon. It is impossible to conceive a people without some strands of poverty. Besides, every stage of economic evolution is marked by its own form and type of poverty. Unemployment is one of the forms assumed by poverty in certain conditions of economic life. The

21 *Handwörterbuch der Staatswissenschaften, Ergänzungsband* (Jena, 1929), pp. 860-61.

same poverty manifests itself under other conditions in other forms, say, in the form of "under-employment," famine etc. In certain stages of civilization a people has to combat famine, in certain others it has to deal with unemployment. One must not ignore also that there are degrees of unemployment as well as degrees of famine. Poverty in every form and no matter of what degree is a social evil and requires to be combated under all regimes; capitalistic or "socialistic." Hence the unrest, the nervousness and panic not only among laymen but also among experts and economic statesmen.

We have observed that the present depression is in part "cyclical" and hence temporary, but in part "epochal" and therefore likely to endure for some long time. The second characteristic is specially valid in regard to rationalization-unemployment. In other words, unemployment as an aspect of modern poverty is not likely to disappear entirely as a category of social existence. And yet doctoring is not impossible. We have said also that poverty is eternal and that to this extent famine or unemployment taken as an absolute category, is a permanent feature of human civilization. Suffering is the lot of certain individuals, groups or classes in every region all through the ages. Economic statesmanship will therefore have to devise fresh remedies decade by decade. Or perhaps the world will have to get permanently used to the institution of Five-Year Plans region by region for carrying on a steady war against poverty. The doctoring will have to be quite vigilant and universal.

There are two problems involved. First, in so far as unemployment is to remain more or less a permanent

feature of modern civilization the state will have to maintain the unemployed in exactly the same manner or spirit in which the poorer individuals or classes were supported by the families, castes, communities, churches etc., in ancient and mediaeval times. It is to be observed *en passant* that even under modern conditions old forms of philanthropy, individual or organized, have not disappeared. "Poor relief"²² is still prevalent as much in Great Britain as in Germany. And even to-day *Stadt-kueche* (city-kitchens) are set in operation and move from street to street offering soup to hundreds and thousands of the working and middle classes. Municipal charity in the form of distribution of food to the needy men, women and children at their very doors is a regular feature of German and Austrian social economy.

While these old forms of relief are likely to continue for some long time, what is specially noteworthy is that social assurance under state guidance, control and management is likely to become more and more the characteristic feature of poverty-treatment in modern times. No civilization can be conceived without a "public burden." Charity only changes its countenance. In new forms, under state auspices,—call it "dole" or insurance with state aid,—philanthropy will have to take care of millions who for one reason or other are deprived of the privilege of functioning as earning members. But these millions can exercise their rights of maintenance at the hands of

22 See the analysis of the situation in Birmingham, Bolton, Cardiff, Glasgow, Leeds, Reading, Shoreditch, and the Tyneside as presented by the authors of *The Third Winter of Unemployment* and *Is Unemployment Inevitable?* in *Unemployment Insurance in Great Britain* (London, 1925) pp. 18, 25, 32, 48, 57, 66, 67.

the state only if the state itself be provided with funds by tax-payers, that is, by those who possess the capacity to pay. Ultimately the public funds come from the class of employers. The employing class, be it observed, will not be in a position to finance the state unless their enterprises prove to be "paying concerns."

On the basis of wholesale prices it is possible to observe how the most diverse economic regions have been affected by the crisis, although of course in different degrees. Of 35 countries²³ which publish index numbers only three indicate a rise during the period from August 1929 to November 1930, namely.

Spain 2.9%

Russia 3.3%

China 7.9%

But otherwise the fall of wholesale prices is a universal phenomenon. The depth of the fall, however, is not uniform, as, for instance, in regard to the following ten countries. The percentage of fall in wholesale prices from August 1929 to November 1930 is indicated below :

Countries	Rate of fall	Countries	Rate of fall
1. Germany :	13.0%	6. United States :	17.7%
2. Poland :	17.0%	7. Austria :	21.3%
3. France :	17.3%	8. Holland :	22.5%
4. Italy .	17.5%	9. India :	24.5%
5. Great Britain :	17.6%	10. Japan :	24.7%

23 *Problèmes*, etc., p. 17. For India, Great Britain, the U.S.A., Canada, Australia and Japan the index numbers of wholesale prices from September 1929 to July 1931 may be seen in *Review of the Trade of India 1930-31* (Calcutta, 1931), p. 4.

The fall in wholesale prices has had its natural impact on the stock exchange. The consequent fall in the value of industrial shares at the end of 1930 in comparison with the maximum attained since 1929, can be envisaged in the following table :²¹

Countries		Rate of fall	Countries		Rate of fall
1. Chile	..	... 5%	8. Austria	..	... 34.5%
2. Norway	...	... 11%	9. Germany	...	... 44%
3. Denmark	...	... 14%	10. Holland	'...	... 46%
4. Sweden	...	... 29%	11. United States	...	... 53%
5. Czechoslovakia	...	... 29%	12. Canada	...	... 59%
6. Switzerland	..	... 31%	13. Belgium	...	... 59.7%
7. Great Britain	...	... 31%	14. Poland	...	... 60%

The percentage reduction in prices of industrial shares from the highest quotations in recent years is as follows :—

1. Germany :	from April 1927	to June 1931	61.7%
2. Holland :	.. March 1929	...	60.0%
3. United States :	.. September 1929	...	59.7%
4. France :	.. Feb. 1929	...	55.7%
5. Great Britain	.. Jan. 1929	...	45.0%
6. Sweden :	.. July 1929	...	30.6%
7. Switzerland	.. Sept. 1928	...	29.3%

Bankruptcies and bank failures have consequently been the order of the day. The American crash of September 1929 had its repercussion on the continent in the attempts to withdraw short term deposits from the banks. The *Oesterreichische Creditanstalt* of Vienna fell a victim in the spring of 1931 and was soon followed by the *Darmstaedter und National Bank* of Berlin. The

²⁴ For more recent figures bearing on some of these countries see *The Course and Phases*, etc., p. 175.

effects on Great Britain have been registered in the suspension of the Gold Standard (September 1931). In America alone there were 2300 bank-failures in 1931.²⁶

All these tendencies of the capital market are entirely prejudicial to the promotion of the investment spirit. Attempts to raise business to the level of paying concerns constitute the fundamental problem of to-day.

The second problem has reference to the temporary or cyclical aspect of unemployment. It consists in reducing the number of unemployed, that is, creating employment for working men and farmers of all descriptions. This is a function not so much of the Government as of the people, i.e., ultimately of the employer classes. From both ends, then, we arrive at the same point, namely, the creation of new profitable enterprises, i.e. the establishment or carrying on of such concerns as are economically worth while. And here lie the difficulties as much of the famine-stricken as of the unemployment-ridden regions. The burden will fall in the last analysis on the capitalistic class, the bourgeoisie, and their capacity to furnish the "sinews of war," i.e. to bear the burden.

We are then led to discuss the question as to why it has been difficult to run the enterprises in a paying manner. The answer is simple. The markets are not extensive enough, i.e., the number of buyers is not large

25 See the Second Annual Report of the Bank for International Settlements (down to March, 1932) in *Federal Reserve Bulletin* for June 1932, pp. 365-370.

26 "Banking conditions in the United States" (*The Economist*, London, Banking Supplement, May 14, 1932), pp. 9-10. For 660 bank suspensions from January to May 1932 see *Federal Reserve Bulletin*, June 1932, p. 403.

enough. Until the purchasing power of the people rises the enterprises of the producers cannot flourish. In order therefore that an enterprise may be run on a paying scale it would be necessary to see to it simultaneously that the scale of consumption, standard of living and the purchasing power of mankind be enlarged or heightened. Germany, Great Britain and the U.S.A. cannot possibly master the unemployment situation, in so far as it is masterable at all, and tackle the modern poverty problem until their markets, both home and foreign, expand. A part of the economic statesmanship of these countries will therefore have to take the form of promoting the economic development of regions which to-day find themselves in different degrees of backwardness, for instance, the Balkan states, Russia, China, India, Latin-America, and the African Continent.

The purchasing power of these backward regions can be raised by industrialisation which implies also modernisation of agriculture.²⁷ These industrialisations will to a certain extent militate against the expansion of Great Britain, Germany and the U.S.A. in the regions concerned. But the competition between these newly industrialised countries and the industrial "great powers" will manifest itself chiefly in the lines of simpler and commonplace goods of ordinary and inferior qualities. For instance, on account of boycott as well as of protection as nationalistic measures, the textile industry of these countries is likely to become more and more self-sufficient. But the demand for "quality goods" in these regions will have to be satisfied for a long time to come

27 Sarkar: "Il Movimento industriale e commerciale nell' India moderna ed i suoi rapporti internazionali" (*Commercio*, Rome, June 1931).

by imports from abroad. Besides, industrialisation will likewise involve extensive imports of machinery, chemicals etc. The wealth of the people is likely to increase and along with it the demand for quality-goods and other foreign commodities even among the agricultural classes. Another item deserves consideration in this connection. It cannot be ignored that inspite of strenuous efforts to develop banking and insurance under national auspices these regions will have to look abroad for the supply of a substantial portion of industrial capital. The unemployment-stricken countries of the world are, therefore, called upon to export capital to those regions which are seeking to industrialise themselves.²⁸ The position of the U.S.A. and France which in post-war years have succeeded in amassing huge fortunes will be specially interesting in this regard.

The three countries affected by unemployment will be compelled to reorganise their lines of financial investments. First, they will find it expedient to abandon those industries which interest themselves in commonplace goods such as are likely to be manufactured on the spot by backward regions as a part of their Swadeshi movements. Secondly, they will have to invest their funds more and more in specialised industries, for instance, those machine-factories which are likely to be instrumental in the industrialisation of the relatively backward regions. And thirdly, they will have to seek fresh fields of investment in agriculture. Re-agrarisation (and

28 With reference to India's requirements in foreign capital see Sarkar : *Economic Development* (1926), pp. 392-400, and *Greetings to Young India* (1927), pp. 68-76.

“internal colonising”) is likely to promote the redistribution of population according to the local needs of farms and factories and thus solve the unemployment question to a certain extent. The economic structure of Germany, Great Britain and the U.S.A. is on the eve of being transformed in a momentous manner along these lines, and this is what may be called some of the phases in the consummation of the “Second Industrial Révolution.”

As an integral part of the above process India, like the other more or less economically backward regions of to-day, is sure at the same time to rise to a higher plane of industrialisation and efficiency such as was attained by the industrial adults during, say, the period from 1870-85. This will be tantamount to India's achieving more or less the grade of the “First Industrial Revolution.” The “Second Industrial Revolution” of the adults is organically connected with the “First Industrial Revolution” of the youngsters; the two revolutions constitute one economic complex. And in spite of political boycott and protective tariffs the next half a generation or generation is likely to witness the working out of this phase of ‘world-economy.’

In plain language, the heightening of the standard of living among the working classes in Germany, Great Britain and the U.S.A., is going to become a reality,—but only to the extent and in so far as a simultaneous improvement takes place in the purchasing power, consumption scale etc., of the peasants in the Balkan Complex, Eastern Europe, Russia, China, India, Brazil, Chile, Africa etc. And this is an economic future to which the students of social science and world-forces may look forward in a hopeful manner.

In the atmosphere of the League of Nations (Geneva), backed up as it is by the special institution, the International Chamber of Commerce (Paris), the ideology of "tariff truce" has become a ruling factor as an element in the development of the "mind international." Naturally, therefore, the thousand times repeated controversy of free trade *vs.* protection has once more raised its head in the discussions on the world-crisis of 1929 and after. It is alleged that the protectionistic tariffs of the post-war period are greatly responsible for the depression and unemployment.²⁹

But the thesis can hardly be maintained in face of current commercial history and statistics. France is a protectionist country but does not happen to be seriously affected by the crisis. Nor can Great Britain, the traditional land of free trade, serve as an example of the principle that "liberalism" in commercial policy is an antidote to unemployment.

We find, besides, statistically, that protective tariff is hardly a hindrance to international trade. This is a curious proposition but actual facts leave hardly any doubt on this point. For the quinquennium 1925-29 there is positive evidence to the effect that no matter what the commercial policy was,—protection or free trade,—the imports (in manufactured goods) of a certain number of countries were actually on the increase.

From *Statistical Tables relating to British and Foreign Trade and Industry* (1924-30), Part I, we obtain the imports of manufactured goods expressed as percent-

ages of total imports with regard to six countries as follows :³⁰

Year	Great Britain	U.S.A.	Germany	France	Belgium and Luxembourg	Japan
1925	18.5	21.8	15.2	12.8	21.8	21.3
1926	18.5	23.0	13.5	13.2	21.9	22.0
1927	19.9	25.0	17.8	13.9	22.7	22.7
1928	20.9	25.6	17.5	18.8	26.3	24.5
1929	21.2	26.0	16.9	20.2	27.1	24.0

It is evident that in 1929 each one of these countries bought more foreign "manufactures" than in 1925. The imports of these items did not decline in proportion to other items but on the contrary increased. This increase has gone on in spite of the almost universal enactment of protectionistic or semi-protectionistic legislation during the same period. One is not justified, therefore, in ascribing too much of the present depression to the tariff factor. Virtually a most normal fact of economic history since the beginnings of the industrial revolution has been the protective tariff, and it should not be reasonable to attribute to this almost first postulate of contemporary economic existence the extraordinary crisis of to-day, the "most serious in over one hundred years," to any considerable extent.

No discussion of the present world-depression, however short and suggestive, can be complete without a reference to the wardebts-reparations complex. At the outset, it is necessary to observe that it is only from the standpoint of auditing and accounting that the reparations paid by Germany to the "allies" may be said to have

some affinity with the war-debts among the allies themselves. But neither historically nor legally can the war-debts be regarded as bound up with the reparations. They are two separate items of the post-war world-economy and should logically be regarded as independent of each other. It is, besides, noteworthy to observe that even in pure arithmetic the reparations and the war-debts do not balance each other. In 1930 the reparations exceed the war-debts by 1,295,000,000 Reichsmarks, and in 1942 the excess will still be measured by 745,400,000 Reichsmarks.³¹

The cancellation of reparations is essentially a political question. The theory of the Versailles Treaty (Art 231) that Germany was the only sinner in the war-damages is wrong. There cannot be any peace in the German soul until the reparations have been cancelled. It is this fundamental political necessity of the people of Germany that has found expression in dozens of anti-Versailles upheavals since 1919 and taken final shape in the activities and demonstrations of the "Steel-helmet," "National-Socialist" (Hitler) and "Nationalist" parties, and last but not least, in the von Papen *coup d'etat* of July 1932. Of late the public opinion of the allies has been getting somewhat sympathetic to the demands of German nationalism.

For, among other reasons, it is objectively patent to everybody that the devastated regions of France and Belgium have long been repaired and modernized with vengeance. Besides, on account of Germany's deliveries

31 *Das Reparationsproblem* (Berlin, 1929) part I, edited by Salin, p. 454.

in coke, dye stuffs, chemicals, agricultural products, timber, sugar etc. semi-developed countries³² like Greece, Rumania, Jugoslavia, Portugal, and even Italy have 'succeeded to a certain extent' in industrializing and modernizing their economic organizations. The political atmosphere among the allies in regard to Germany may then be taken to be somewhat favourable, perhaps much more humane in any case than in June, 1929, when the Young Plan came up for public discussion.

But economically speaking, it is doubtful if the cancellation of reparations and the cancellation of war-debts "at the present moment" are likely to be beneficial to Germany, or to the allies, or to the rest of the world, especially if these cancellations are consummated in an 'abrupt' manner. The industrial and general socio-economic structure of the German people to-day is based on some two decades of war-economy and reparations-economy. The investments of capital as well as the employment of manual and brain workers are all adapted to the business conditions, exports and imports, etc. of the reparations regime. A "sudden" change of this regime can but spell tremendous dislocations in the industries, agricultural system and commercial as well as financial conditions of Germany.

On the other hand, Italy, France, Great Britain and the U.S.A. have likewise established their national economies in accordance with the imports and exports requirements such as the financial (and goods) transfers dependent on the receipt of reparations and payment of war-

32 *Das Reparationsproblem*, p. 450 (*Die Sachlieferungen Deutschlands, Die Verteilung der Sachlieferungen an die Gläubiger*).

debts have rendered inevitable. The agriculture, manufacture as well as commerce of all these countries are likely to be upset by "extraordinary" changes of the existing system.

Naturally the dislocations of the internal economies of these five great economic regions will mean another cataclysm for the world-economy. The dislocations will involve radical changes in the direction of internal and external commerce, ups and downs in business houses, bankruptcies and bank failures, currency crises etc. with consequent repercussions on the employment market. The economic situation the world over is in danger of being worsened rather than being improved by hasty reparations surgery.

The present world-crisis is not much due to the reparations-wardebts complex except in the sense that every item is organically connected with the other items of world-economy. It can be conquered in the long run, as observed before, chiefly if the purchasing power of the following economic regions be helped up by swift industrializations :—(1) the Balkan complex, (2) Russia, (3) Asia (especially China and India), and (4) Latin America.³³ The industrialization of these regions can be promoted, first, by the import of capital, and, secondly,

33 It is curious that the League of Nations and the International Labour Office have bestowed hardly any attention on these aspects of the world-economy while discussing the present crisis. These industrializations have arrested their notice as *nouveaux foyers de production* (new centres of production) and as *troubles du commerce qui sont generateurs de chômage* (hindrances to commerce such as are causes of unemployment.) Their attitude to these industrializations, protectionistic and nationalistic as they generally are, is anything but sympathetic and optimistic. See *Problèmes*, etc., pp. 37-40.

by the import of machineries, chemicals and quality-goods generally, from Germany, America and Great Britain, and to a certain extent from Belgium, Switzerland and France.

But so far as reparations are concerned, justice will have to be done by the world to Germany's sense of national honour. The method should consist, first, in a reduction of the payments according to a gradually declining scale, and, secondly, in the distribution of these reduced payments over, say, a decade. By 1940 the world-economy ought first, to be thoroughly emancipated from the rule of the two categories, war-debts and reparations, in the second place, to be adjusted to new, and more or less normal conditions of agriculture, manufacture and commerce, and finally to witness the consummation of the "first industrial revolution" in India, China, Russia, the Balkans and Latin America etc. functioning as ally to the "second industrial revolution" of the pioneering nations. The sooner the world gets rid of the very idea of extorting 2,000,000,000 Reichsmarks a year from Germany for two generations, the better is it for the political and economic tranquillity of mankind. It is to be hoped that the present Hoover moratorium is the beginning of the end of fantastic reparations.

It is very likely that as soon as the "politics" of reparations are solved in a more or less reasonable manner, nations with plenty of loan-capital will begin to develop the sense of confidence in the investment markets of the world and a new series of international capital movements will commence. A better and more adequate mobilization of capital from regions that have it to those that have it not is calculated to relieve the world of a great part of

industrial unemployment and agricultural depression, as well as of the fall in prices, which are so prominent features of the present crisis. Ultimately the economic rejuvenation of mankind is hanging on an appropriate political therapeutic of international dimensions.

The world-economy is normally adjusted to the exports and imports of capital. Certain economic regions are used to export a part of their finance and others to import it.

About the year 1914 the great capital exporting countries were three in number :—Great Britain, France and Germany. In pre-war years the United States was a borrower of foreign capital. But in 1928 she was a lending country while Germany, the pre-war lender, became a borrowing region. The chief lending countries at this later date were again three; but the U.S.A. and Germany changed their roles in international investment.

The following table sets forth the approximate total foreign investments (credit and debit) of these four countries at 1914 and 1928 (in dollars):³⁴

Country		1914		1928
1. Great Britain	Credit	18,000,000,000	Credit	20,000,000,000
2. France	„	8,700,000,000	„	5,200,000,000
3. Germany	„	5,600,000,000	Debit	4,500,000,000
4. United States	Debit	3,000,000,000	Credit	10,000,000,000

This table excludes reparations and war-debts. But it is evident that in 1928 the available export capital was substantially larger than the amount in 1914. We are to understand that foreign investments were playing a considerable part in the normal functioning of the world's economic system down to the year preceding the

American crash of September, 1929, with which the present depression has commenced.

The restoration of a more or less normal condition of things would require the revival of the lendings and borrowings of capital. A feature of the present crisis consists in the fact that lending countries have failed to lend as much as they generally do and that borrowing countries have not been able to obtain as much loan as they "normally" obtain.

The following table exhibits the tendencies towards the fall in capital exports (in dollars) since 1928 (omitting 000,000's) :

Country	1928	1929	1930
1. Czechoslovakia	53	31	x
2. Great Britain	667	672	190
3. U.S.A.	1,036	233	213

The drop in the export of capital from these three countries is extraordinary.³⁵ Not less extraordinary is the drop in the import of capital into those countries which are used to borrow of foreign markets. The following table exhibits the position of the borrowing countries in regard to their capital imports (in million dollars) :

Country	1928	1929	1930
1. Argentina	131	38	x
2. Australia	193	166	x
3. Finland	40	12	x
4. Germany	1,017	567	170
5. Hungary	88	37	x
6. India	67	36	x
7. Norway	34	8	x
8. Poland	140	58	x
Total	1,710	932	

35 *The Course and Phases, etc.*, pp. 201-203.

We find that Argentina which obtained 131 million dollars as loan from abroad in 1928 had to content herself with only 38 millions in 1929. India's capital import declined from 67 millions to 36 millions and so on. The list is not exhaustive. So far as eight countries are concerned, there is a total decline from 1,700 to 932 millions.

The percentage of decline in capital import in one year may be seen as follows :

1. Norway :	...	76%	5. Hungary :	...	58%
2. Argentina :	...	71%	6. India :	...	46%
3. Finland :	...	70%	7. Total of eight countries		45.7%
4. Poland :	..	59%	8. Germany	..	44%
			9. Australia :		14%

The functioning of the economic activities of these eight countries in Europe, Asia, South America and Oceania was handicapped in 1929 by the dearth of capital measured by some \$787,000,000. Later, the situation became still worse, but actual figures are hard to obtain.

Whatever factor economic, political or psychological, is likely to remove this dearth of capital or encourage the tendencies towards the export of capital bids fair to be a powerful aid to the removal or mitigation of the world depression.

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